PER. NOT ENT'D.

The American Artisan
And Hardware Record

Vol. 55. No. 2. CHICAGO, JANUARY 11, 1908. $2.00 Per Year.

TURN BUCKLES

A full line of Bolts, Bolt Ends, Rivets, Lag Screw, Nuts, Washers and Carriage Hardware.

COLUMBUS BOLT WORKS, Columbus, O.

IN THE FRONT RANK FOR 25 YEARS
"AMERICAN SEAL"
ELASTIC OIL ROOFING CEMENT
STOVE PUTTY and ASBESTOS
FURNACE CEMENT

and the superior quality of these goods is still universally recognized.

THE WM. CONNORS PAINT MFG. COMPANY
MAKERS
TROY, N. Y.

Western Agent
FREDLEY-VOGHARDT CO.,
Chicago, Ill.

Southwestern Agent
STOCKHOFF SUPPLY COMPANY
St. Louis, Mo.

TRYING to do business without advertising is like winking at a girl in the dark; you know what you are doing but nobody else does.

The Hardware Merchant who sells good goods,
SELLS ORIGINAL
MATCHLESS
Floor Hinge, Jamb Hinges, and Hardware Specialties.
If your Jobber cannot furnish them, write us.
LAWSON MFG. CO
40 Dearborn St., Chicago, Ill.

NEW DESIGN WORLD'S BEST
TUBULAR TRACK DOOR HANGER

We have increased the diameter of the wheel to 2¼ in., making it the easiest running Hanger on the market.
The supplementary wheel prevents derailment. Frame is made of best grade malleable iron. Finished in Aluminum and each pair packed in an individual box, complete with bolts. The track brackets are slidable and may be placed at any point desired. We do not sell catalog houses. Write for prices.

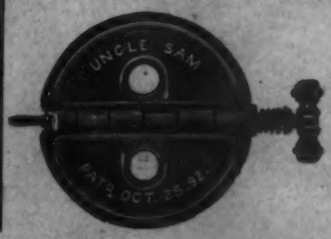
SAFETY DOOR HANGER CO.
Manufacturers
Ashland, Ohio Hamilton, Ont., Can.

"NEVER-BREAK"
TRADE MARK

Catalog Free
"NEVER-BREAK"
Steel Spiders, Griddles & Kettles
WILL NOT
Scale Off like cheap enamel.
WILL NOT
Scorch or Burn like light fry-pans and skillets.
WILL NOT
Absorb Grease or Flavors like cast iron.
THE AVERY STAMPING CO.
CLEVELAND, OHIO
Sole Manufacturers
"NEVER-BREAK" Goods.

DELTA
FILES OF QUALITY
CARVER FILE CO., Philadelphia, Pa.
An independent organization not connected with the trust in any form, shape or manner.
TRADE MARK DELTA
FILES

NONE BEATS THE
Uncle Sam Damper



It is light, easily adjustable and enduring. The plate is stamped from best nickeled steel and is corrugated to prevent warping. The stem consists of forged steel sharply pointed, notched to engage edge of plate, and is held absolutely in place.

Nothing better on the market
Send for free sample

SAYRE STAMPING CO.
SAYRE, PA.

Will Cook and Bake for 300 Men

The Continental Cook Stove

Burns any coal or 30-in. wood.

Can be fitted with one-half Barrel Reservoir and Ham Boiler of the same size.

30-inch oven, 6 or 9 nine-inch cooking holes, 9-hole cooking surface—36½x47½ in.

A Complete Delmonico Outfit for Camps

Popular Pittsburgh Prices

STOVE & RANGE CO. of PITTSBURGH

PITTSBURGH, PA.

Heating Large Buildings With the KELSEY

Up to a few years ago, it was supposed to be impracticable to heat a large residence, or a large public building with a direct warm air system.

But in recent years, it has been demonstrated over and over again that with the KELSEY System the results in large work are just as satisfactory, as in small residence jobs.

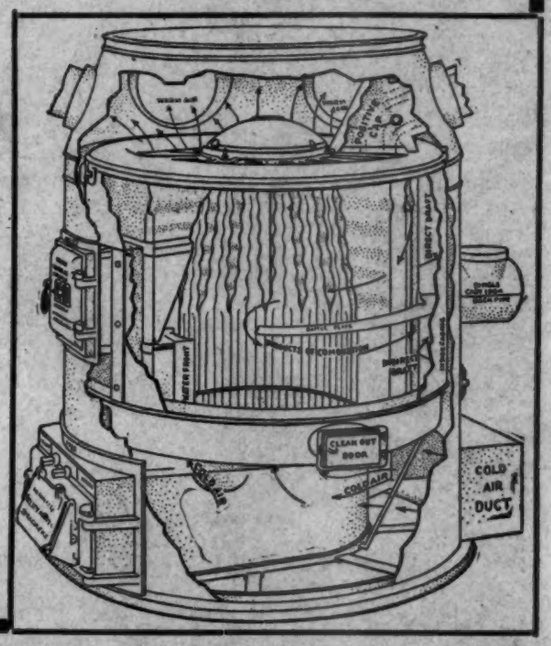
The KELSEY supplies pure, warm air to all parts of the building, forcing the air to distant or exposed rooms.

And the KELSEY has the advantage of lower first cost for installation—lower cost for repairs and maintenance—and a lower cost for fuel.

These are not idle assertions.

If there are any large buildings contemplated, or going up in your vicinity, in which you'd like to install the heating system—let us tell you all about the KELSEY Warm Air Generator, and the work it does.

Here's a field that offers you a splendid future and a good profit.



Kelsey Heating Company

SYRACUSE, N. Y.

New York: 156 Fifth Ave.

Van Evera & Lewis Mfg. Co.

104-106 W. Lake St., Chicago

James Smart Mfg. Co., Brockville, Ont., Sole Makers for Canada

National Red Cross Range

OUR NEW ONE

National Red Cross

National Red Cross

They are getting tired of a whole lot of nickel, so we have designed this one.

It is richer, cleaner, handsomer and more artistic than anything we have ever made, and soon all stove makers will follow us.

This is Rococo, pure, clean, straight Rococo decoration, and there's some nice rich nickel work with it too.

Now about the inside. Ithas 18 and 20 inch ovens, big fire box, removable dockash, duplex or wood grate. Burns soft coal, hard coal or wood. Combination sheet flue. Broiler front.

A gas attachment fits on where the reservoir is if wanted. It has three gas burners, an oven and a broiler. This makes a combination range of it.

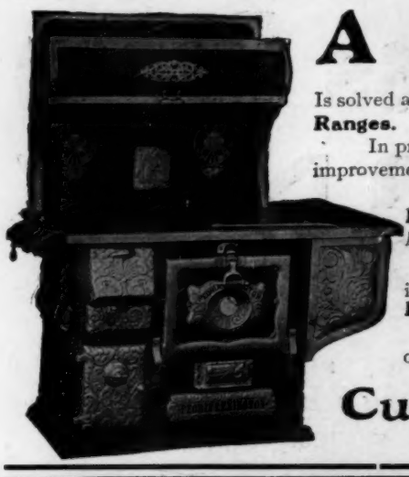
Nice Range, Isn't it?

☛ **Our Milwaukee agency** has been abandoned — and all our Western and Northwestern business is now transacted by our Chicago agency—where a full and complete line of modern up-to-date **Red Cross** stoves and ranges is kept in stock.

Better get our latest catalogue

CO-OPERATIVE FOUNDRY CO., Rochester, N. Y.

JOHN KONTNY, GENERAL WESTERN AGT., **264 S. Clinton St., CHICAGO**



A Burning Question

Is solved after investigating the superior features embodied in **Peoria Lexington Steel Ranges.**

In producing this line we employ only skilled workmen, spare no expense and add all improvements that have proven a success under test.

Dealers in all sections, after an inspection of **Peoria Lexington Steel Ranges** have unanimously declared that they have **"More Points of General Merit than any Steel Range made."**

If you want a line that brings a legitimate profit, and eliminates all dissatisfaction upon the part of purchasers, carry in stock **Peoria Lexington Steel Ranges.**

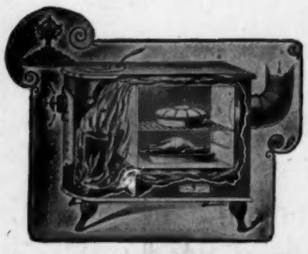
We've just issued printed matter explaining the many unique features of our goods; a postal brings it. **Write to-day.**

Culter & Proctor Stove Company

Hamilton and Water Streets, PEORIA, ILL.

Sell The Cosby Patent Baker & Heater This Season

The fastest selling stoves on the market, because they fill the needs of the people. Cosby Baker and Heaters do **double** work — they **cook** anything—**heat** any room. Bottom and top of cast iron. If you want to sell more stoves—to make more **money**—write us **at once** for full information. Merchants everywhere are adding the line. We are doing much general advertising.



Union Stove Co., (Inc.)

501-2 Mutual Building Richmond, Va.

A Strong Selling Combination

When you consider the quality of materials we use and the quality of finish we produce in the manufacture of

Champion Steel Ranges

You will readily see what a strong selling combination we offer you. By selling the *Champion Steel Range*

You Can Successfully

overcome the cut-price, cut-quality kinds of competition and make a good profit too. Your interest in our catalog is sure to be of money making benefit to you. Send for it.

Champion Steel Range Co.,

CLEVELAND, OHIO.

Hardware Dealers' Mutual Fire Insurance Company

OF WISCONSIN

O. P. SCHLAFER, Appleton, President. **R. C. MURDOCK, Beloit, Vice-President.**
H. L. McNamara, Janesville, Treasurer. **C. A. PECK, Berlin, Secretary.**

WE know we have a good thing but we want YOU to know it, too! If you will analyze the following figures, you will be able to see that we are right:

What would 50% of your insurance premiums last year amount to?
That is just what you lost by not coming into the fold last year!

1907 Ratio of Losses 23%
1907 Ratio of Expenses 12%
35%
Saving, 65%

Policies written in 1907, 1252, $1,869,075.00
Applications on File to Write, 127,500.00
Dividends Rebated 1907, 40%
1908, 50%

Don't put it off!

Suppose you write to the Secretary **today** about this thing.

A Range of Quality

The Superb Gold Coin Polished Steel Range

Please understand that this steel range is a maker of customers and that it was designed and is being built in a manner that would make it so.

It is not a guess nor an accident. It is filling its intended purpose and our patrons do not hesitate to put it to the front and recommend it for just what it is. There is no better, better looking or fairer steel range.

IT IS A TRADE WINNER

Catalogs on application.

Chicago Stove Works

Blue Island Ave., and 22d St., CHICAGO. ILL.

We Make It!

The BEST Air Drying Iron Enamel Made.

Try a 1-Dozen Case From Your Jobber

Nickel Plate Stove Polish Co.

CHICAGO.

Large 10 oz. Can.

Simple, Durable, Powerful

Our

Cast Iron Furnace

with Heavy Steel Plate Return Flue Radiator embodies many practical improvements which make it simple to operate, durable and a most powerful heater. Nothing but the very best material used in its construction. **Absolutely gas, smoke** and **dust-proof.** Good profit in selling our furnaces.

Write for printed matter and prices.

Walter S. Rait & Co.

211-213 Lake Street, CHICAGO, ILL.

Economy, Cleanliness and Durability All Combined in the

Moncrief

Warm Air Furnace

A few of the many good points of the MONCRIEF
- All Cast Iron
- Moncrief Duplex Grate
- Large Radiating Surface
- Top Return Flue
- Double Fire Pot
- Large Grate Surface

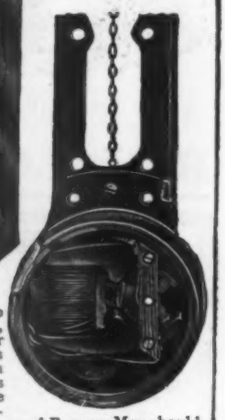
HENRY & SCHEIBLE CO.

825-29 Long Avenue, N. W.
CLEVELAND, O.

Western Sales Agent
J. C. KIMMEL, 3314 E. 15th St.
Kansas City, Mo.

Most Accurate of all Furnace Regulators

THE
C. D. HOWARD AUTOMATIC
REGULATES EXACTLY



Perfectly simple to install. No weights, clock work or springs. Operates without attention all winter and keeps the temperature uniform at any desired point. Builders and Furnace Men should see our new Descriptive Booklet which tells why the C. D. Howard Automatic is cheapest for you and best for your customer. Sent Free.

Retails for $25.00. Write for Trade Discounts.

C. D. HOWARD AUTOMATIC FURNACE REGULATOR COMPANY,
127 West Fayette Street, SYRACUSE, N. Y.

C. De Witt Wagner, 40C Third Ave., Cedar Rapids, Ia., writes: "Please accept my thanks for your help in securing a tinner for me. I had letters from several states which goes to show that The Artisan is read."

Why Are Over 45,000 Mueller Heaters in Use?

First—Because they give more heat per pound of fuel consumed than any other heater.

Second—They are practically indestructible, being made on practical and scientific principles—made to withstand hard usage.

MUELLER Heaters are easily sold in competition because of their superior qualities, and at a better price, allowing dealers to make more profit.

Many other reasons—too numerous to mention here.

It's to your advantage to secure the agency of the MUELLER.

L. J. MUELLER FURNACE COMPANY

ESTABLISHED 1857

191 REED STREET **MILWAUKEE, WIS.**

Gilt Edge Radium Furnace

With Heavy Steel Radiator

Burns hard coal or block wood.

Carries an enormous field of quick action radiating surface.

Perfectly made and mounted. Is gas and dust tight.

A perfect worker and a great seller.

Catalogue on Application

R. J. SCHWAB & SONS CO., Milwaukee, Wis.

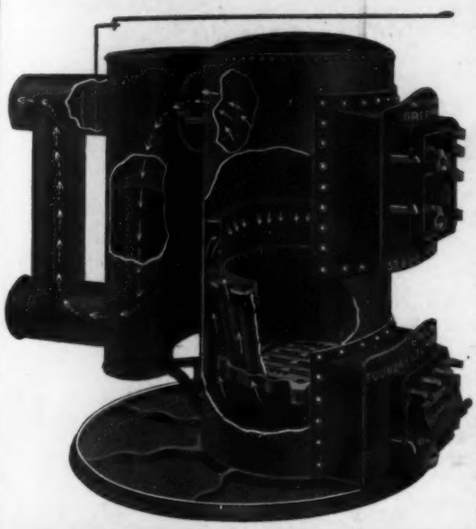
The Record of the

FLORAL CITY FURNACES

During the past ten years has never been equalled. They are, as a line, the **BEST FITTED AND MOST POWERFUL, ECONOMICAL AND DURABLE FURNACES MADE,** and we stand ready to prove this at any time by actual test. Perfect castings, skillful workmanship, careful supervision, these are the features that mark the superiority of the Floral City.

Monroe Foundry & Furnace Co., Monroe, Mich.

Your Furnace Business



in 1908 will be much larger than it was in 1907, if you can show your prospective customers something better than your competitor is showing. Why not sell a furnace combining all of the desirable features of furnace heating?

GREEN'S BASE HEATER

is built with a **slotted fire pot,** thoroughly consuming the smoke and gases, and **reducing the cost of fuel.** The fire pot is the most durable of any used in Steel Furnaces as the **ashes can not accumulate behind it.** The heat penetrating through the pot and steel surrounding it, makes **every inch of this furnace heating surface from the bottom plate to the top.** A powerful heater, something good which your customer will appreciate, something better than your competitor can show. Large radiator with **long smoke travel; double feed doors;** grate bars which operate **independently of one another,** with hollow centers; deep ash pit. A furnace which **costs no more than any good furnace,** but heavy, durable, combining all of the **advantageous features of furnace heating. Write for our Catalogue.**

Green Foundry & Furnace Works

Dept. "A" :: **DES MOINES, IOWA**

More Than 10,000 in Use in St. Louis Alone Giving Absolute Satisfaction.

WHEN WE PROVED THAT

The Front Rank Steel Furnace

burns successfully any kind and any grade of fuel—the radiator not choking up—people in St. Louis stopped installing other furnaces and installed the "Front Rank," 10,000 of 'em and they are giving absolute satisfaction to-day.

How about you taking the agency in your town? Good money in it.

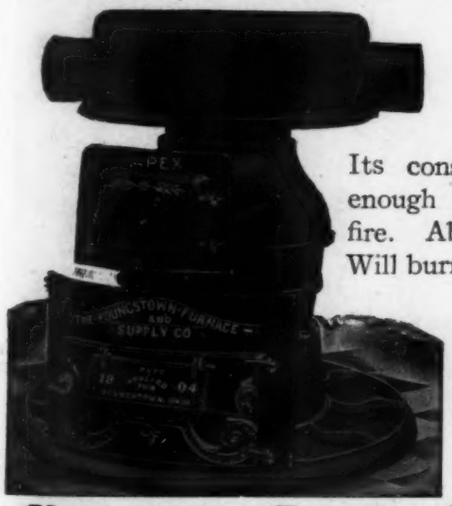
The Front Rank Has the Greatest Demand and Brings the Most Money. Write To-day.

Sales Agents for Wisconsin and Northern Peninsula of Michigan
CORDES HEATING & SUPPLY COMPANY, MILWAUKEE, WIS.

HAYNES-LANGENBERG MFG. CO.

4045-4057 FOREST PARK BLVD. **ST. LOUIS, MO.**

The APEX Warm Air Furnace



is an extra heavy, durable furnace with a most powerful heating capacity. Its construction is strong enough to resist the fiercest fire. Absolutely gas tight. Will burn hard coal, soft coal or coke. Simple to to operate, economical and thoroughly efficient.

Write Today for Catalogue

Youngstown Furnace & Supply Co.

Chicago Office, 211-213 Lake St. **Youngstown, Ohio**

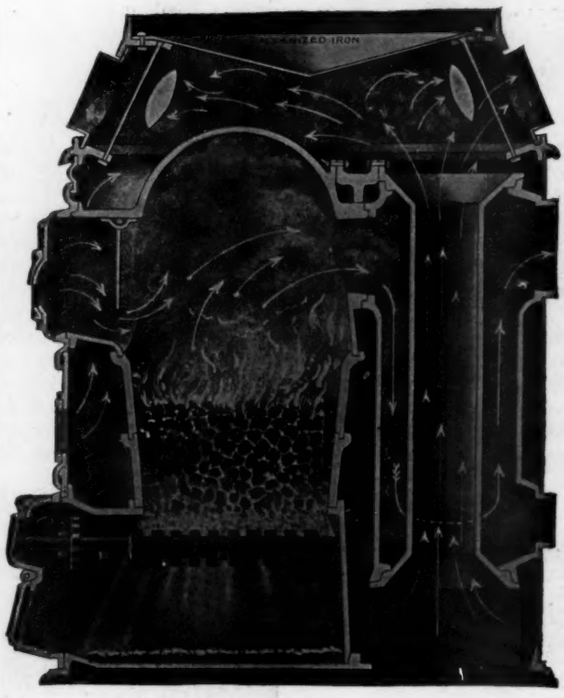
Rood & McIntyre, Kansas City, Mo., Southwestern Distributors

W. W. ANDERSON

SADORUS, ILL., Writes

The tools I advertised are now sold, but I am still receiving inquiries about them. Please take out the ad. and notify in the paper that they are sold. An ad. in the American Artisan does the business every time. Yours very truly.

4-7



Shaded Sectional Cut

of the

"Low Down" Crown Warm Air Furnace

Designed to show the direction taken by the gases and warm air. Also the thickness and staunchness of its parts.

March-Brownback Stove Co.

POTTSTOWN, PA.

Monarch Air Blast

All the advantages of our famous MONARCH plus the air blast. This is a sectional upper fire pot constructed so that oxygen is fed into and above the fuel burning the gases, assuring economy, cleanliness. It is the most practical soft coal furnace offered the trade.

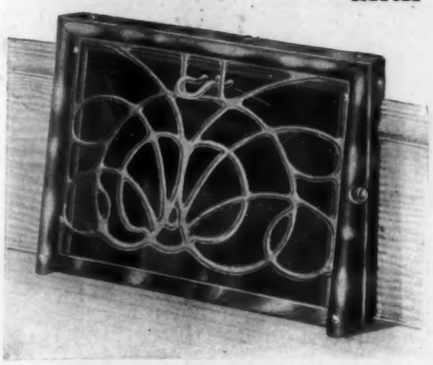
Forest City Foundry & Mfg. Co.

CLEVELAND, OHIO.

Mfrs. The Imperial, Niagara and Combination Furnaces, Registers, Mail Boxes, Hitching and Sash Weights, Etc. Write for our new Catalog.

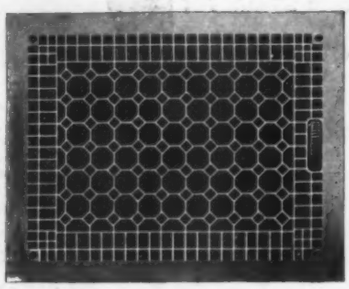
DON'T BUY REGISTERS

until you get our prices



We manufacture a very complete line of sizes in all finishes.

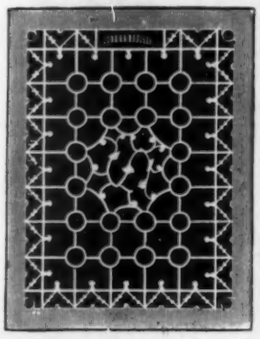
MUELLER special side wall registers [both steel and cast] possess many superior points over others. Often-times help the sale of a heating job.



L. J. MUELLER FURNACE COMPANY

ESTABLISHED 1857

191 REED STREET **MILWAUKEE, WIS.**



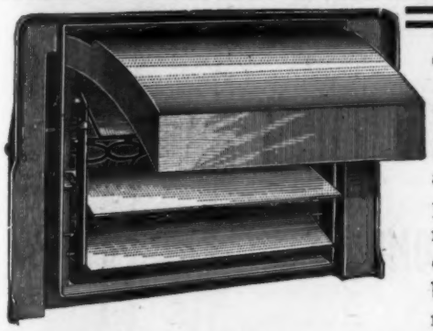
REGISTERS

NOT IN THE ASSOCIATION. OUR DISCOUNT 80 and 5%.

MAKERS OF ALL CAST WARM AIR REGISTERS, neat in design, and superior in finish, interchangeable with all first-class makes, and will wear a life-time.
Why buy the so-called Semi-Steel or Stamped Register? They are only imitations.
We are the largest makers of registers in the country. Our own foundry with molding capacity of 200 molders.
Get the Association's discount and compare it with ours. You will see how much we can save you.
We carry a large stock insuring prompt shipment.

STANDARD REGISTER COMPANY

Register Dept., Standard Foundry & Mfg. Co., CLEVELAND, OHIO



The Air That Comes

From the ordinary warm air furnace is dry and parched—it withers plants, makes furniture crack — causes headaches. Air to be healthful should contain moisture.

The WATERLOO supplies **moist** air, as well as warm air. The warm air impinges on the lower side of the water pan in the WATERLOO, and causes slow evaporation—in exact proportion to the volume and temperature of the air itself!

Want Prices and Details?

Waterloo Register Co.

Waterloo, Iowa

Pease Fdry. Co., Toronto, Canada
Canadian Manufacturers

The NO-RIVET Damper Clip is a whirl-wind success!
Saves time — saves bother and annoyance, damper can't sag in the pipe — and costs really less than others. Ask for special prices!

IT'S EZE

Get wise, make some side money. It's very simple. Just write THE AMERICAN ARTISAN, 69 Dearborn Street, Chicago, and tell 'em you want to solicit a few subscriptions. They pay a liberal commission.

THE BOYNTON FURNACE CO.
BOYNTON'S PATENTED SQUARE POT
NEW YORK — CHICAGO

207 and 209 Water St., New York.
147 and 149 Lake St., Chicago.

WE wish you A Happy and Prosperous New Year. We are confident it is coming your way.

Don't look at the hole in the doughnut!

If we say, "We don't know where we're going but are on the way" we but voice the sentiment of at least 14,000 men of the navy and sundry presidential candidates who are full of faith. The main point is to be on the way.

To be able to give a reason for the faith that is in us is but to note the magnitude of the crops for 1907.

There is nothing speculative or uncertain in the conditions they produce.

Speaking of wheat we are filling our store houses with staples as "good as wheat" subject to immediate delivery on orders.

We shall have some 1908 improvements and are at your service.

Yours truly,

THE BOYNTON FURNACE COMPANY

ESTABLISHED 1880.

THE AMERICAN ARTISAN & HARDWARE RECORD

Representative of the Stove, Tin, Hardware, Heating and Ventilating Interests.

PUBLISHED EVERY SATURDAY.

TERMS OF SUBSCRIPTION IN THE UNITED STATES AND ITS POSSESSIONS, (Invariably in advance): ONE YEAR, POSTAGE PAID, $2.00.
IN FOREIGN COUNTRIES INCLUDING CANADA, ONE YEAR, POSTAGE PAID, $4.00.
Address all Letters, Communications, and Remittances to

DANIEL STERN, PUBLISHER AND PROPRIETOR,
69 DEARBORN STREET, CHICAGO, ILL.

Entered at the Chicago Post Office as Second Class Matter.
THIS PAPER IS A MEMBER OF THE CHICAGO TRADE PRESS ASSOCIATION.

CHICAGO, JANUARY 11, 1908.

In Re the Panic.

OUR friend the panic has departed after the briefest stay that any panic has ever been known to have made and it has left behind a lesson that should not be soon forgotten. It has taught us that the great wealth and the inexhaustible resources of our country cannot readily be seriously abridged or interfered with by anything as intangible as a breath of suspicion or a fleeting cloud. It has taught us that what we have and know we have, wholly aside from the coin of the realm is the real wealth after all, regardless of the volume of the medium of exchange, which, correctly considered, is but a matter of convenience at best. It has taught us that our great and resourceful country has grown too strong and too confident in its strength to be shaken by excitements and flurries that in years agone would have stopped the wheels of progress and crushed our industries like an egg shell. The panic has met its master in the grain fields, the mines, the forests of America and in the courage of the men who now direct our wonderful industries. It has taught us that timidity and pessimism are double-edged swords and that confidence and courage must and always will prevail. Prosperity is again abroad in the land. It is for everybody who deserves it and will accept it. The great industries are again awake and active and even the laggards and the frightened ones have experienced a restoration of confidence. All is well, and before we get far into the year 1908 it will be known that the grand old United States is riding upon a monster wave of prosperity such as no nation has ever dreamed of or hoped for, and as we forge ahead upon the swift and strong tide of commercial and industrial supremacy the sole reminder of the brief panicky weeks that we have driven away will be in memories of that very apt quotation, "What fools these mortals be."

A Heating Furnace Problem.

THE furnace industry is laboring under exceedingly unfortunate conditions. Not in the matter of producing furnaces for there are no better heating furnaces nor any half so good as are produced by American furnace manufacturers, but it is in the matter of their disposition in a manner that will give them the increase in business that they are really entitled to that their misfortunes arise. THE AMERICAN ARTISAN'S annual "Furnace Specials" in which clear exhibits are made of the annual trend of the furnace business as relates to its prosperity, its general welfare statistically and comparatively both as to its manufacturing and its retail divisions have of late years shown an increasing amount of complaint in the voluminous correspondence from retail furnace experts, relative to a very serious injury that is done to the furnace industry in all its ramifications through lack of salesmanship by furnace dealers who are afraid to ask decent prices for good substantial furnaces and suitable equipments therefor and also to ignorance and recklessness in the matter of furnace installation. We are in a position to have learned much of this complaint in our published and unpublished correspondence and also verbally from practical furnace experts, and therefore we possibly realize more fully than does any one the injury to the industry in a general way from causes that are remediable and should in some way be remedied. We are aware that a goodly portion of the best furnace makers are careful about whose hands their furnaces go into and that behind this they exercise every care in the direction of positively correct installation; sometimes even to the extent of arbitrarily dicating what makes and what character of wall pipe and fittings must be used and of ascertaining what chimney flue and other conditions and capacities are to be met with and they also insist upon and make sure that their own correct directions are followed unvaryingly, but with all this care they are unable to always govern the methods and the acts of rivals who give little heed to all or any of the treacherous conditions that surround furnace setting, in matters of faulty original architectural conditions, faulty chimney flue constructions and capacities, faulty furnaces selections as relates to capacities and reckless "devil may care" installations that too frequently give evidence of ignorance at first sight to the practical furnace man. Of course much of this is due to the fact that it is done beyond the observation of the furnace makers whose goods are thus treated, hence we say that the furnace industry is laboring under unfortunate conditions, as the perfect work turned out by the furnace manufacturer too often leaves him forever when sold to the retailer who may then juggle and botch and cheapen the accompanying equipment and labor, to his heart's content regardless of the fact that the vicious influence of one bad furnace job extends to everything in the nature of hot air furnaces and their equipments. There is much cry about cheap furnaces but it is doubtful if any of them even the cheapest will fail to do the work it may be honestly represented to do if properly installed and intelligently operated. The fault lies chiefly in misrepresentations, largely by dealers and possibly to an extent by sales-

men both of whom are naturally eager to make sales regardless of the fact that cannot be intelligently overlooked and often that one crooked sale is altogether likely to destroy or forbid a dozen or more honest ones. Nearly all furnaces are honestly made and honestly intended, it would be folly to make them otherwise, for a business that is intended to be permanent. The cheaper ones are commonly cheaper because of abridged capacity or the absence of special features and modern conveniences that make others the more attractive, hence the more costly and in many instances these features contribute largely to increased efficiency and are protected by letters patent which give their makers absolute control over them. Manufacturers know all about this and they naturally appreciate it but as a rule they do not seek to overcome such advantages by misrepresentation for the reason if for no other, that the individual integrity of their wares is their sole mainstay in business. But in the hands of too many retailers this factor is wholly disregarded and as we know from most excellent witnesses durability, capacities, conveniences and all else is altogether too freely multiplied in favor of the cheaper furnaces without any authority or license from the makers. As is indicated in a line of furnace communications now running in THE AMERICAN ARTISAN, notably in the letters of Charles Ewalt and Horace V. in the issue of January 4, 1908, there are far too many timid ones or cowards in the retail furnace trade. Many of them no doubt are retail salesmen who are actually afraid to ask right prices for furnaces for fear of losing sales and who show the lowest prices for both furnaces and equipment that can possibly be scraped together for the same timid foolish reason. It is quite natural that in such an endeavor to sell, even the poorest furnaces and the poorest equipments will not be under estimated in quality and merit. We know this to have been the course pursued in many actual instances where better furnaces and better equipments and installations would have been readily sold at much higher prices and vastly better profits if the more expensive goods were first presented and the square honest truth had been told about them at the start and without "knocking" any other furnaces either. In many cases it may be said that such sales occasion keen disappointments to buyers and not infrequently wholly lose the future trade of good customers. It should be remembered that as a rule furnace buyers know little about furnaces in a practical way and that while they, like everybody else, like to save a little on purchases it is not to be expected that they are wholly willing to forego comfort, convenience and freedom from annoyance in consideration of even very considerable additional outlays of money. People don't commonly buy worthless furnaces or worthless installations unless they are misrepresented to them.

The files of THE AMERICAN ARTISAN show inquestionable instances in which hot air furnaces of all kinds have been practically driven out of communities and other heating methods substituted because of no fault whatever of the furnaces themselves, but solely because of the bad reputations that have been given them as a class by bungling work done in furnace installation by incompetents who had them in charge.

We have here laid bare a portion of the obstacles with which the hot air furnace manufacturing industry has to contend, namely ignorance, deceit, untruthfulness, cowardice, poor salesmanship, general misrepresentation and poor and often rotten installation. Surely this is quite enough to substantiate our opening statement that the furnace industry is laboring under exceedingly unfortunate conditions. We do not of course intend to imply that these conditions are general or that they are at all common in the trade but the business is a sensitive one and one bad blunder, one recklessly bad sale, one vicious installation anywhere, not only seriously hurts the furnace trade of every dealer in the community no matter what furnaces they sell and no matter how correctly they may do their work, but it also serves to shake the faith of that community in all hot air furnaces.

Now as to remedies. Apparently retail furnace dealers need more and better and more general education concerning the selling and installing of furnaces. As a rule furnace manufacturers will plan for setting furnaces in aid of their customers, though many do not do so at all thoroughly, but are the dealers always competent to set forth all the conditions and measurements? and do they always do so even if competent? Are not these measurements and conditions frequently somewhat misrepresented for the purpose of putting through deals of furnaces already sold which the manufacturers would not tolerate if the real conditions were known? Does not a retail salesman or some uninformed employe often take care of the measurements, computations and conditions and leave his employer and the furnace maker largely in the dark as to the real state of affairs?

Does it not frequently happen that an all sufficient dealer or employe goes ahead and installs, guided by some furnace setting instructions that do not apply to the furnace in question at all? Every furnace catalogue that has rules commonly differs essentially from others, and even with rules and correct rules for setting and for equipment are not the fixed laws of ordinary ventilation often utterly ignored and disregarded?

It would seem that a campaign of education in hot air furnace work is a necessity through a uniform system of literature eminating from a certain head with the approval of all furnace manufacturers and relating not only to furnace installation and ventilation but to the selling of furnaces as well. Might not a bureau of furnace experts be profitably established to this end either through an association or otherwise that could educate and advise in a general way allowing individual manufacturers to suppliment its work direct as related to any certain peculiarities of their own constructions? Such a bureau might also prepare expert heating plans for slight charges that would help to sustain it. At any rate such an institution if well chosen as to its personnel and well equipped with all the available furnace data certainly could educate dealers up to correct methods of furnace installation and salesmanship and it also could certainly instill into the minds of architects and builders generally facts that would greatly help furnace men in avoiding very many of the common failures that are directly attributable to the persons who plan and build buildings in utter disregard of present or future furnace possibilities.

Fixed laws at least might govern largely in such a bureau and fixed laws are not to be disregarded intelligently.

RANDOM NOTES AND SKETCHES.

BY SIDNEY ARNOLD.

I learn from to-day's dispatches that they've arrested Heinze and I'm to presume that they've put him in the "cooler." I mean "F. Augustus," he who is credited with "coppering" the prosperity of the country and who with other big moneyed ones framed up the late lamented money worry.

* * *

Well, now that the lid's off again and everything booms once more I don't know but what the recent financial stringency was a good thing after all, for it's just as well to have let the millionaires and financial acrobats get some of the money worry once in a while that a whole lot of the little ones are wading around in most of the time, for it tends to generate mental and physical activity and keep the blood and the fairy stories in circulation.

* * *

With the collapse of the panic I feel as if I'd just gone through a political campaign for the election of a president. As soon as they wind up a good hot campaign of this kind and the republicans win there are no democrats and the reverse is the case if the democrats win. So it is now, there are no pessimists, no timid ones, no calamity howlers. Everybody is one of the "I told you sos" and is lined up with the optimistic crowd, as full of confidence as a fat sausage is full of stuffing.

* * *

This money business as it is handed to me from different directions all in a bunch is rather too big for me anyhow, I guess, for my anatomy and my inclinations won't go in two opposite directions, as was demanded only recently by the receipt of two souvenir cards, one a native, the other a Canadian. In the home grown one, pictures in red, yellow, blue and gold, some cute little men are positively throwing away gold coins by handfuls and bag fulls, while the Canadian one is a forlorn hard-times reminder done in rough strawboard with hard-times printing, jute twine instead of a silken cord attachment and other features that indicate "tough sleddin'." So between the influences of the two I don't know whether I'm flush or broke and it doesn't make a whole lot of difference anyhow, does it?

* * *

It's the poets for me, for in the average they are the boys who never hide away any millions nor withdraw money from circulation in sums that disturb the nation's equilibrium, and what's more, they commonly take the optimistic end of any old kind of a proposition. I'm beginning to hear from them already on the subject of our friend, the panic. Here's what my friend in Tennessee hands out to me in the *Nashville Tennesseean*:

"ARE YOU THE MAN?"

There's a scary sort of fellow goin' all this country through
A-talking of the future in a way to make you blue;
A-predictin' woes and panics and all kinds of dreadful shocks,
And a-blamin' folks in Wall street and condemnin' deals in stocks;

Sayin' our financial system is a structure full of faults
And a-callin' in his money and a-lockin' it in vaults,
And with wish to bring him forward and convert him if we can,
We are seekin' information—
Say, are you the man?

Shucks! Don't let a little flurry from the clouds a-passin' by
Make you think the storm has covered all the broad financial sky;
You would see the sun shinin' if you'd just poke out your head,
Stop a-countin' up your losses—count your blessin's up instead;
Trouble finds the man who falters sooner than the man who fights;
Quit your talk of comin' panics, help at settin' things to rights;
Let a little cheerful confidence, not grumblin', be your plan
Now to save the situation—
Say, are you the man?

* * *

And just to make it a good one here's another along the same lines. It's a good hot one from the home of the sitxeen-to-one shot presidential possibility, Mr. W. J. Bryan. I'm not telling who wrote this one, I'm only guessing, you may do likewise:

Say, *YOU,*
With a Dollar or Two
Or Three or Four
Or a whole lot more
Stuck away—DON'T KNOCK!
Take that money out of your sock
And put it in Circulation—
It's as safe as the Nation—
And, by heck!
You daren't say that it's going to wreck.
Circulate it; let it get out
And move about
And you'll mighty soon see
Restored Commercial Activity.
Say, Horders, what's Scaring you, anyhow?
You ought to know that what
You're doing now to save yourselves
Will send us all to Pot!
You're letting Panic chase away
Your Business Confidence and Paralyze your Energies
And Dope your Common Sense.
Loosen up, loosen up;
Put your money where
It's bound to give the thing a start
And make it go for fair.
With every business end alive
With Stocks and Crops to burn,
If you'll put your money in
You're bound to call the turn.
SAY, you've seen a Cloudy Day,
When you knew the Sun was up in the Sky—
But it could not Shine till the Clouds rolled by,
Could it? Of course not;
And that's what is the Trouble with you.
Let your money get through from where it is hid;
Get down the Jar and take off the Lid;
Push the Clouds aside;
Let your money Shine;
Lend a Hand;
Kick the stuffing out of Panic
Down the Whole Line.
SEE! That's Business!

News Siftings

The factory of the Summit Stove Company at La Crosse, Wis., which has been shut down for the holidays, has resumed operations.

A fire in San Francisco, Cal., on December 28, originated in the stove warehouse of Magrum & Otter stove manufacturers. Considerable damage was done to the stove stock.

F. M. Borden & Bro. of Philadelphia, Pa., give notice that during the months of January, February, March, April, May, June, July and August of 1908 their stove establishment will be closed at 1 p. m. on Saturdays.

At the directors' meeting of the King Stove & Range Company, held in Atlanta, Ga., on December 21, it was decided to build its Sheffield, Tenn., plant recently destroyed by fire on a very much larger scale than it formerly was.

A very pretty holiday card comes to THE AMERICAN ARTISAN with the compliments of W. H. Colebrook's Sons, makers of asbestos, cement, putty, etc., of Syracuse, N. Y. The card is addressed to "the many friends" and relates to the patronage the firm has enjoyed during the year.

We have with the compliments of the S. Obermayer Co., Foundry Supplies, Cincinnati, O., a card that is cut in form to make an ear closer. It is designated as the "Hot Air Protector." It is an ingenious and rather amusing affair which we presume is sent to customers and others upon application.

The Hermeyer Stove Company of Tiffin, O., has been incorporated with a capital stock of $25,000 by Walter W. Myers, Louis Selle, G. S. Tillotson, W. H. Dore and Chas. Hermeyer. The company will engage in the manufacture of cooking and heating stoves.

A. J. Ross of Cambridge, Ill., has just completed a modern brick store building 25x90 feet and two stories and basement high. He will put into the building a complete stove and plumbing stock and to this end would like to receive catalogues of cook stoves and ranges.

The business men of Norfolk, Va., through an industrial organization known as the "Two Hundred Thousand League," are endeavoring to induce a certain large stove plant to locate in Norfolk. The stove company is said to be one which is either about locating or is arranging to locate in Sheffield, Ala.

"May good luck, health, wealth and business prosperity be yours during 1908" are the greetings that come to us from the Eagle Cooperage Works of Circleville, Ohio, accompanied by a prettily mounted "Old Glory." The company connects with the hardware line with Eagle mop, wringers, detachable mops and other specialties.

Henry L. Stimson, who heretofore was secretary of the Glazier Stove Company of Chelsea, Mich., has been appointed general superintendent of the company's affairs by the receiver thereof, Mr. H. L. Stanton. Mr. Stimson's knowledge of the business will no doubt be of great value in straightening out the company's affairs. The plant will be again put into operation in a very short time.

The Hiawatha Heater Mfg. Company of Boston, Mass., has been incorporated with a capital stock of $20,000. The company's purpose is to manufacture portable heating devices. William W. Phillips is president and treasurer.

The Kipp-Lackey Company of Peoria, Ill., has been incorporated for the purpose of manufacturing a denatured alcohol burner which is said to be of a a nature that will permit the utilization of alcohol for all uses in which gasoline is now commonly used as relates to cooking and heating. The company proposes to build a plant in Peoria within a very short time and to get their goods into shape and put them on the market.

At the annual electrical exposition which opens in Chicago on January 13 and continues for a period of two weeks, more than the customary allowance of space will be allotted to the features of domestic cooking and heating. This has always been an interesting feature of the electrical exhibit and as the forthcoming exposition will show the very material advancement in electrical arts as they relate to home affairs the display in this department of the show promises multiplied interest.

A 1908 calendar issued by Presbrey Fire Brick Works of Taunton, Mass., displays a large steel plate picture of the Falls of the Rhine done in black upon a white card board. The illustration is in oval form 9x7 inches in size and is really an artistic production. A calendar pad beneath it in black upon white paper with large figures is in monthly sections. The card upon which the entire matter is mounted is 11x14 inches in size and a white silk cord is let in, to complete the hanger. The calendar is of convenient size and is a very good one.

The James Stewart Manufacturing Company, Limited, of Woodstock, Ont., Canada, manufacturers of Good Cheer Stoves, Ranges and Furnaces, send us an ingenious hard times greeting of the kind that is apt to give one "the creeps." It is put up in a deckel edge, plain, coarse strawboard cover, to which is tied with the coarsest of jute twine an ingenious announcement whose type matter contains the hard times assortment of type, which includes about every style of letter known to the printing art. Opposed to this is a very splendid half-tone picture of "mother" bringing in the plum pudding with a brightest smile of Christmas cheer. The device is very well gotten up for what seems to be its purpose and for what possibly may be the situation at the place of its origin, but it appears to strike a false note with us for the reason that we have not as yet nor do we expect to be up against anything in the nature of hard times.

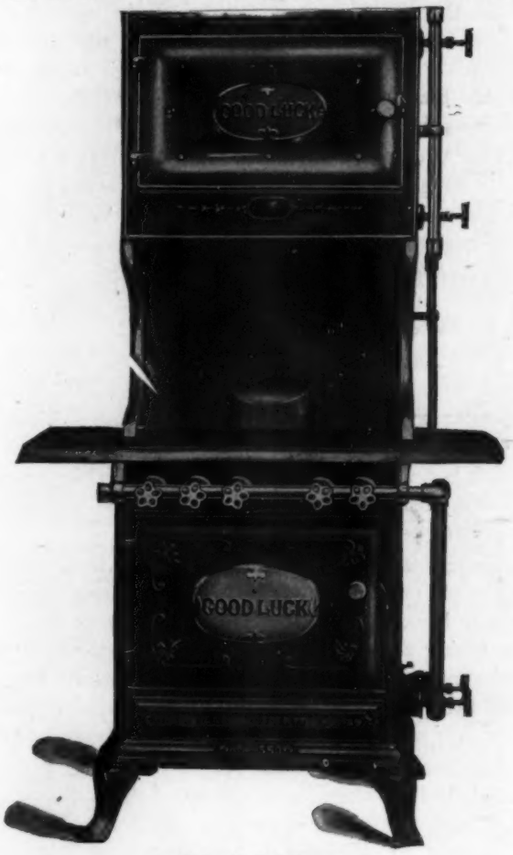
The Weller Pattern Company of Quincy, Ill., issues an announcement to stove manufacturers and others relating to the company's preparedness for taking up both regular and irregular lines of stove pattern work in this the opening of the preparatory season. The company has made a very excellent record in stove pattern work, both as to wood patterns and iron patterns, and it is one of the pattern establishments that is always busy. The company has in hand at the

present time some very important commissions in stove pattern work along lines that are classed as of the most modern types both in ranges and heaters.

We have from the Salt Lake Hardware Company of Salt Lake City, Utah, a post-card upon the reverse side of which is shown in reproduced pencil work a very good illustration of the company's new and very large hardware warehouse, the drawing of which has been very cleverly done and the pencil effect makes it quite interesting.

GOOD LUCK GAS RANGES.

The Good Luck high oven gas range offered by the Stove & Range Company of Pittsburg, Pa., possesses many features that have become very popular in the trade and also among users. The Good Luck



Good Luck Gas Range.

as it is offered at the present time not only carries a very excellently high oven, but it is also equipped with a large low oven beneath the burners and with a thoroughly good broiler and roaster. The construction of the range is very compact but it is sufficiently large in its measurements to provide for either four or six cooking holes as may be required and a twenty-inch broiling oven and a twenty-inch baking oven. The construction of the range is along the very best of modern lines. It is operated with needle valve, cut-offs and is provided with a back flue pipe for the escape of burnt air and odors.

The range is built in polished steel construction and is handsomely ornamented in nickel and in tastefully stamped designs. Catalogue and special literature with full descriptive matter may be had upon application by addressing the company as above indicated. When writing kindly mention THE AMERICAN ARTISAN.

SCHILL BROS. CO.'S PLANT.

Schill Brothers Company of Crestline, Ohio, is sending to patrons a very large and splendid engraving of the stove and furnace plant of the company at Crestline, Ohio. From a small beginning of this concern in 1892 when their shop was a very modest affair upon the same ground where their present works are located, the entire establishment covered probably 30 x 60 feet two stories high. The chief product at that time was the Schill furnace and it may be said that the energy and force and splendid character of the Schill boys made this furnace a conscientious success right from the start. In 1900 the business was incorporated under its present title with a capitalization of $250,000 and since twice has increased its capital until it is at present $2,500,000, and its monster stove making plant is one of the wonder of central Ohio.

It affords over two acres of floor space and its foundry capacity is twenty-five tons of iron a day. The success of the company and the perfection of its plant are results of the genius and industry of the two Schill boys who first established this business under the title of Schill Brothers in 1892. We assume that copies of this very handsome picture are to be mailed to the trade upon application. When writing for it kindly mention THE AMERICAN ARTISAN.

ACETYLENE GENERATORS.

Ideal Epworth Acetylene Generators are, as we are advised, growing rapidly in favor in the trade and among users because of the wonderfully beautiful light that is afforded by gas produced by their use. It is generally admitted that the acetylene light is an ideal one for many reasons, first its reduced volume of flame creates far less heat and is consequently less destructive to the air in an apartment than is either coal gas or gasoline gas or any other kind of gaseous illuminant. The quality of acetylene light is becoming more generally known and its actinic and diffusive qualities which reveal colored objects in their true color is becoming more appreciated. For use in dwellings, stores, hotels, churches and for street, factories and other lighting it is conceded to be among the most satisfactory lights that have been produced. There have been some difficulties in the matter of arranging suitable and safe devices for the production of acetylene gas, but as has been the case with many new enterprises the proper device for utilizing the new light has been arrived at. Among the safe devices for acetylene gas production and distribution doubtless the best and most popular one is the Ideal Epworth Acetylene Generator, concerning which some very instructive and entertaining literature relating to the gas, the apparatus and its advantage, is published by the makers, The Ideal Epworth Acetylene Co. of Johnstown, Pa. The literature may be had upon application. Kindly mention THE AMERICAN ARTISAN.

The Hardware Record.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly. You will find these on pages 30 to 35 inclusive.

THE RETAIL HARDWARE CONVENTIONS.

It has been customary for the retail hardware associations to hold their conventions early in the year, nearly all of them having been held heretofore prior to the first of March. This is occasioned by the fact that the first two months in each year commonly run light in business and the merchants are, therefore, better prepared to attend meetings during that period than they are at any other time of the year. Of the retail hardware dealers' meetings to be held during the first quarter of 1908 there is a great deal expected in the way of general social interest, in the way of business conference and in the way of arranging matters for guidance during the remainder of the year. In connection with many of the association's meetings hardware exhibitions will be conducted and, as with many dealers, this is a very interesting feature. We have taken occasion to indicate the meetings in connection with which the exhibits will be given in the list of annual conventions which are printed herewith accompanied by their dates. The asterisk (thus *) indicates that a hardware exposition will be given in connection with the association meeting. The datings are as follows:

Inland Empire, Spokane, Wash., January 15, 16 and 17.
Oregon, Portland, January 21 and 22.
Texas, Dallas, January 21-23.*
Pacific Federation, Portland, Ore., January 23-25.
North Dakota, Fargo, January 28-30.
South Dakota, Aberdeen, February 4-7.*
Missouri, St. Louis, February 4-5.
Wisconsin, Milwaukee, February 5-7.*
Connecticut, Meriden, February 10 and 11.
Kentucky, Louisville, February 11-13.
Nebraska, Lincoln, February 11-14.*
Indiana, Indianapolis, February 18-21.*
Iowa, Cedar Rapids, February 18-21.*
New York, Buffalo, February 18-22.*
Pennsylvania, Altoona, February 24-26.*
Ohio, Columbus, February 25-27.*
Minnesota, St. Paul February 25-28.*
Illinois, Peoria, February 26-28.*
New England, Boston, March 11 and 12.*

The annual convention of Missouri Retail Hardware Association will be held at St. Louis, Mo., on February 24 and 25, 1908.

The Advance Stamping Mfg. Company of Indianapolis, Ind., has been organized with a view to manufacturing stamped ware and hardware specialties.

We are advised that the Milwaukee Tack Company of Milwaukee, Wis., has built an addition to its plant which will be utilized in the production of babbitt metal.

Mr. W. H. "Pop" Bennett of the Reading Hardware Co. has issued in his own personal behalf a tasteful post card, the reverse side of which is handsomely illuminated and has attached a tiny 1908 calendar pad.

A tasteful and convenient sized 1908 calendar done in white, black and gold is being distributed by the Bergstrom Stove Co. of Neenah, Wis. A plainly printed calendar tab in black and gray is a feature of the offering.

Announcement has been made under date of December 26th that the plant of the National Enameling & Stamping Company at Granite City, Ill., will resume work on January 6th. Its 2,000 men have been out of work for a number of weeks.

The Pittman-Coates Hardware Co. of Battle Creek, Mich., has disposed of its business to S. J. Dobbins of Marshall, Michigan. The title of the corporation has been changed to the Dobbins Hardware Co. The business will be continued as heretofore at Battle Creek, Michigan.

There is to be presented to the common council of Milwaukee, Wis., an ordinance which will provide for the registration of the names of all purchasers of firearms of every kind. The measure is intended as an assistant in the fixing of identities of persons and weapons by whom and which crimes are committed.

The Advance Stamping & Manufacturing Company of Indianapolis, Indiana, has been incorporated with an authorized capital of $30,000. The company will also manufacture hardware supplies, tools and machinery and will operate a machine shop. The incorporators are Wm. W. Williams, E. W. Spencer and F. H. Wheeler.

Mr. R. H. Suettinger, propreitor of the Cash Hardware Store at Two Rivers, Wis., has issued his annual calendar for 1908. This year's offering is a pretty, highly colored embossed one, the pictorial feature of which is a water subject with a pretty girl in a canoe, a swan, rushes, etc. It is quite attractive and a 1908 calendar pad is attached.

The Scott Hardware Company, of Paducah, Ky., is reported in the hands of the receiver pending adjudication in bankruptcy. The liabilities are reported to be something under $50,000 and the assets about $75,000 including accounts. Most of the creditors are foreign. The firm did a wholesale and retail business until a year ago when the retail business was discontinued.

In a recent annual trade review of the city of Richmond, Ind., in the *Evening Item* of that city, we find that Mr. Sharon B. Jones of the Jones Hardware Company of Richmond contributed an interesting trade item relating to the wholesale and retail hardware business of Richmond for the year 1907, together with more or less information relating to the hardware outlook for 1908. The contribution is a very interesting one.

We have from the Peoria Retail Hardware Merchants' Association of Peoria,, Ill., an announcement relating to the hardware exposition that is to be given at the Coliseum in Peoria, under the direction of this association, during the dates of the Illinois Retail Hardware Association in Peoria, namely February 26-27-28. The management of the exposition will be quite largely in the hands of Mr. J. L. Douglas, secretary of the Peoria association. The announcement of this event which is before us contains a numerical list of conditions which are to govern exhibits and it also includes a contract blank for ex-

hibitors' signatures. Judging from the amount of space that has already been taken there appears evidence that this year's hardware exposition will be one of the most successful that has been held in Peoria.

"Little Red Devil" Hack Saw Blades are made the subject of a leaflet, of envelope size, which comes in the mail from Smith & Hemenway Company of 296 Broadway, New York. These blades are of the kind that are said to appeal to the small tool chests and small purses. They are designated as being made of Bo-ras-ic steel tempered by secret process and in No. 239 they run to 6, 7, 8, 9, 10, 11 and 12 inches with a corresponding scale in prices. Any of them will be furnished with from 24 to 30 teeth to the inch for cutting thin sheets of metal when specially ordered. They come one-half gross in a box.

The Maher & Son Lightning Rod Co. of Preston, Iowa, is one of the active and prominent concerns in its field and it enjoys the distinction of being the only lightning conductor rod concern in the country that manufactures a thirty-two-wire cable for lightning arresting purposes. The company also produces and offers a complete assortment of high grade equipment items, including arrow vanes of pure aluminum, horse, cow and rooster vanes of pure zinc, and 34-inch bayonet points of pure copper, giving $500 guarantee. The company claims to have the finest static machine in use, which is given to agents free of charge.

A very nicely gotten up envelope size catalogue of ice cream freezers has been issued by North Brothers Manufacturing Company of Philadelphia, Pa. It is under a dense green flexible cover with an embossed title page done in brilliant red and light green. The body of the work is done in red and black and is a most acceptable example of arrangement and printing. The text of the work is well written and there are some 25 illustrations shown of the company's various patterns of freezers and also illustrations of separate features relating thereto. The work is a convenient one and there is much information contained therein.

We have from Blish, Mize & Silliman of Atchison, Kas., an envelope size folder relating to the recent flurry, the subject of which, as the author states, has been suggested by a similar offering by the Wapak Hollow-ware Company parts of which are reproduced. The text of this folder is highly optimistic and apparently it is designed for the purpose of stirring up retailers and putting some optimistic ginger into them for which purpose we are willing to admit it is quite well adapted. The text takes up the recent financial flurry as a Wall street product and disposes of it by showing its utter needlessness and also by showing that nothing that can occur in Wall street should have influence upon Western Manufacturing and trading affairs because of the strength and wealth in all ways of the country outside of speculative affairs. It is a very good dissertation upon the panic subject and is altogether timely. The folder comes to us accompanied by the personal card of Mr. J. B. Silliman of the Company.

Secretary Bare of the Ohio Hardware Association advises us under recent date that new members are joining the Ohio Hardware Association that heretofore the association has been unable to interest in the work but whom after careful study of the entire proposition have found it distinctly advantageous from every point of view to be in line with association members from all over the state and to work in concert with them. The management of the exhibit feature that is to be a part of the annual meeting has arranged to use what are known as universal booths for the exhibits to the end that exhibitors may be relieved of the annoyance of building or fixing up their own booths as by the universal arrangement everything is prepared in advance and each exhibition booth will be found heated and lighted and ready to move into at once. The annual convention and exhibit will be held in Columbus, Ohio, February 25-26-27, 1908. Last year every available foot of space in Memorial Hall was utilized. The same condition is promised this year. One of the special features of the forthcoming convention will be a combined executive and social session to be held on the evening of Wednesday, February 26th.

OUR DRUMMER FOR JANUARY 1908.

"Our Drummer" for January, 1908, or in other words, the monster monthly catalogue of Butler Brothers, presents itself with accustomed monthly promptness and as usual it is replete with most excellent trade offerings to merchants of all classes. The hardware department is especially strong and especially large at the present time and in referring to hardware we naturally include tinware, stamped ware, enameled ware and such other items as apply regularly to retail hardware stocks. The Butler system of wholesale trading is an attractive one. They carry all kinds of retail assortments. They sell exclusively to retail merchants and by their careful cash buying arrangements and the enormous strictly cash business they do are prepared to offer peculiar inducements to merchants whose business comes largely without selling cost. "Our Drummer" tells the entire story once a month. It exhibits illustrations of everthing one can think of, all classified in correct groupings. Each item is fully and accurately described and prices are printed out in full and that's the whole story after all. The January number runs to 350 large pages with many thousands of illustrations and good ones at that. The index is carefully and correctly arranged so that any item among the thousands may be located instantly. A feature of the present issue is in assorted, complete lots of 5 and 10-cent goods that are extremely well chosen, that make a big show and cost very little money. The 5 and 10-cent departments are usually good, profitable schemes for retailers, as the goods, if well displayed, are convenient of access, usually do their own selling and also induce the sales of many regular goods besides bringing the people in where one may get neighborly with them. Butler Brothers should not be confused with the mail order houses that are in such poor standing among retail dealers, as their business is wholly with merchants in the capacity of a wholesale general merchandise store. There is no question whatever about their responsibility nor about their squareness in every particular. Butler Brothers

are located at Randolph Bridge, Chicago, Ill. In writing them kindly mention THE AMERICAN ARTISAN.

$100.00 FOR HARDWARE WINDOW.

The period of annual inventories by retail hardware dealers which is now pretty generally in progress, ought to develop a great many things belonging to hardware stocks that have been overlooked or forgotten. Many such things get out of the line of sale for a period and are then pushed aside for something else until they get into situations where nothing but the annual inventory will disclose them. Those who discover goods of this kind will find it a very good proposition to put at least examples of them into the best show windows, so that they may get started up again and into the channel along with rapid selling goods.

We have had during the past week several advance notices concerning show window photos that are about to be sent us. The number of entries has been increased considerably of late and as we are now in the last quarter that will be allowed for filing photographs in the competition, intending competitors will find it advisable to get their windows into shape and have them photographed without delay.

Following will be found the full explanation of the conditions relating to the contest herein referred to:

A list of the prizes to be awarded by THE AMERICAN ARTISAN and the conditions governing its hardware window dressing contest is as follows:

The Prizes.

The prizes will be awarded as follows:

First Prize, $50 in gold for the best photograph and description received of a window display of hardware.

Second Prize, $25 in gold for the photograph and description second in excellence.

Third Prize, $15 in gold for the photograph and description third in excellence.

Fourth Prize, $10 in gold for the photograph and description fourth in excellence.

The Conditions.

The conditions of the competition are as follows:

The photographs may be sent by mail or express, charges prepaid, and must reach this office not later than noon, on April 1, 1908. Address all photographs to THE AMERICAN ARTISAN Prize Competition, 69 Dearborn street, Chicago, Illinois.

Each photograph and description must be signed by a fictitious name or device and the same name and device must be put upon a sealed envelope containing the real name and address of the contestant. This sealed envelope is to be enclosed with the photograph.

Award of Prizes.

A competition committee of three will be appointed, one of whom will be an expert window dresser and one an experienced hardware man. This committee will pass upon the merits of all photographs and descriptions received, without knowing the names or addresses of the senders, and will decide the winners of the contest.

THE AMERICAN ARTISAN reserves the right to publish all photographs and descriptions submitted in this competition.

ROTARY WASHING MACHINE.

The Rotary Washing Machine, which is a product of the Rotary Washing Machine Co., of St. Louis, Mo., is one of the newest and naturally one of the most modern washing machines offered to the hardware trade. The company is one of comparatively recent organization. It is, however, directly under the management of Mr. Henry Brammer, who has been engaged in the manufacture of washing machines for a number of years, having been intimately connected with the X. L. C. R. Mfg. Company, and its successors, of Davenport, Ia., since 1895. He is therefore, enabled to devote his vast fund of practical information and experience to the production of the newest thing in the line, namely, the 1908 Rotary Washing Machine. The company has an advantage in having a new factory and a thoroughly new modern up-to-date equipment with the best of high grade labor saving devices for the production of the new and interesting product. The factory is located on the Terminal railroad in St. Louis where it is enabled to enjoy superior shipping and receiving facilities for the incoming material and the outgoing perfected machines. Through an announcement we are advised that the rotary washer embodies the newest features in washing machine construction. It is made in the reliable tub form and is otherwise patterned in the manner of the most acceptable washers that are upon the market. It is made, however, in a superior manner, its tub being made of genuine Louisiana red cypress lumber with the inner surfaces both as to side and bottom duly and properly corrugated. The tub is heavy and its stave joinings are tongued and grooved and accurately fitted in a manner that makes the entire structure perfectly tight. The lid is of double thickness and is attached to the tub with heavy steel hinges. The machine is of the internal gear-type which is recognized as the most powerful and efficient

Rotary Washing Machine.

arrangement for the purpose, as no springs or clutches are used, and the action is positive and without any lost motion. It is claimed that this is the only successful quick reverse gearing that is made. The gearing is entirely enclosed, as will be seen by the illustration, but it is readily accessible for oiling or for any other reason without the use of tools. A self-adjusting hardwood dasher changes its position automatically to suit the amount of clothes in the machine and the dasher post is heavily galvanized to prevent rusting. The machine is attractive in appearance. It is light in color, being in the natural finish of the wood, and the aluminum bronze castings and bright hoops serve to increase the attractiveness. We are advised that the company is already having great success with the "Rotary" and the outlook for its future is said to be exceedingly bright. Excellent literature relating to the rotary washer may be had upon application to the company as above indicated. When writing kindly mention THE AMERICAN ARTISAN.

INLAND EMPIRE IMPLEMENT AND HARDWARE DEALERS' CONVENTION.

Everything is in readiness for the third annual convention of the Inland Empire Implement and Hardware Dealers' Association, to take place in the assembly room of the Spokane Chamber of Commerce, January 15 to 17, when it is expected the attendance will be the largest and the most representative in the history of the organization, which embraces 150,000 square miles in eastern Washington, northern Idaho, western Montana, northeastern Oregon and the boundary country. A feature of the big gathering will be the complimentary banquet and smoker by the Chamber of Commerce and the Spokane Merchants' Association to the delegates on the evening of the first day. The committee in charge is composed of E. F. Wagoner, Percy P. Powell, J. R. Possou, E. W. Evenson and J. M. Comstock.

The first session will take place in Secretary Evenson's office in the Hutton building at 9 o'clock on the morning of January 15, and will be followed by the reception of members. R. L. Spiker, president, will call the convention to order at 10 o'clock, and after a prayer by Rev. Dr. W. J. Hindley, the address of welcome in behalf of the city of Spokane will be delivered by Mayor C. Herbert Moore. President Spiker will respond. F. E. Goodell, president of the Chamber of Commerce, will welcome the delegates to the organization's home, the response being by C. L. Butterfield, former president. After this the secretary and treasurer will make his report and President Spiker will speak of "Things to Think About."

The afternoon will be devoted to the business of the Washington Hardware & Implement Dealers' Mutual Fire Insurance Association, which will divide $8,000 among its members. The premiums reached $20,000 in 1907, the fire losses amounting to a little more than $5,000, as against $13,000 premiums and $1,120 fire losses in 1906.

The second day's program includes an address by T. M. Shearman of San Francisco, who will discuss the question, "Has the Association Made Good?" This will be followed by questions and an address by John Smith of Walla Walla on "The Value of Local Associations and My Experience with Them." "Why I Joined the Association" will be discussed by W. F. Pool of Waitsburg.

This program has been arranged for the third day's session:

Address, "Other People's Money," by E. M. Brannick, Portland, Ore.

Address, "Loyalty," by C. L. Butterfield, Moscow, Idaho.

Address, "Twenty Years in the Hardware Business," by E. E. Lucas, Davenport, Wash.

Address, "How About It? What's in Your Safe?" by J. N. Nankervis, Moscow, Idaho.

Address, "Scarce Money, or Scared Money, Which?" by W. J. Kommers, vice-president Exchange National Bank, Spokane.

Address, "Harness in a Hardware, Implement and Vehicle Store, and My Experience With It," by A. Z. Wells, Wenatchee. A. A. Kraft of the A. A. Kraft Company will supplement this address with remarks.

Address, "Jobbing Retailers and Retailing Jobbers," by C. E. Max, of Branson & Max, Coeur d'Alene, Idaho.

Address, "Why Don't They Take Their Liquor Straight?" by J. H. Berge.

There will be a banquet and smoker in the evening at which J. O. Patton will be master of ceremonies.

This program has been arranged for the entertainment of the visitors by the Chamber of Commerce:

Song, "Star-Spanugled Banner," the Elks' Quartet.

Introduction, E. F. Waggoner.

Address of welcome, F. E. Goodall, Chamber of Commerce; A. W. Doland, Spokane Merchants' Association; C. Herbert Moore, mayor of Spokane.

Song, Elks' Quartet.

Responses: M. E. Hay, Retail Dealers' Association; E. L. Spiker, Inland Empire Implement and Hardware Dealers' Association.

Song, Elks' Quartet.

Discussion, "The Parcels Post," J. M. Comstock and E. W. Evenson.

Song, Elks' Quartet.

"Currency Legislation," George S. Brooke and E. T. Coman.

Song, Elks' Quartet.

"The Alaska Pacific Exposition," H. A. McLean and N. W. Durham.

Song, Elks' Quartet.

"Our Inland Empire," Hon. A. E. Mead, governor of Washington.

"PRISCO" WASH BOILERS.

In its reaching out for things to improve upon, for things to better, for things to pull out of the "good enough" rut, The Pritchard-Strong Company of Rochester, N. Y., who have successfully demonstrated how really good lanterns and really good other things should be made, have finally attacked the peaceful, homely and long suffering wash boiler, which by the company's efforts has been rescued from the "good enough" realm and shaped up and and transformed into a state of comeliness, symmetry and beauty that makes the trade "sit up and take notice" of the "Prisco" wash boiler, the new creation that outshines, outwears and outclasses the wash boilers of all previous times. In the transformed wash boiler two wide flat stamped belts take the place of the ordinary body rolling with good results. The cover carries a double ornamental roll around its edge, a wide tinned wire hook is affixed to the cover to provide for hanging it to the body edge or elsewhere when not in use, and as a part of the outfit a smooth round clothes stick is provided and mahogany finished end and cover handles are provided A distinct "Prisco" style pervades the Prisco wash boiler that makes an aristocrat of it. In its make up as it is described the tin plate used is manufactured on "Prisco" durability specifications and so heavily coated with pure tin that it can be whittled off with a common pen knife as you would shave a stick of pine

wood. The copper bottoms are full weight, tinned one side and are of Lake Superior quality only, guaranteed the purest and best obtainable, and are put on with a hand rounded double seam, instead of having a sharp right angle edge.

Only the heaviest 3/8 inch steel rods are used for reinforcing the top edge.

The covers are full weight XX charcoal tin plate of the same grade as the sides of the boiler, and the extra deep vertical rims with curled edges assure a perfect fit.

The handsome "Prisco" mahogany finished handles are strong and large enough to give a firm lifting grip and are all attached with large tinned rivets which are carefully soldered to prevent rusting out, while the handle on the cover has plenty of clearance to prevent burning the hand.

The "Prisco" wash boilers are certainly "swell" affairs in all particulars. See them in their very good pictures and learn more about them by addressing the company as above indicated. Kindly mention THE AMERICAN ARTISAN.

WHEELING WARES.

Wheeling galvanized ware and Wheeling japanned ware, both shown in illustrated form together with descriptions and prices, are the subjects of an envelope size folder by the Wheeling Corrugating Co. of Wheeling, W. Va. The goods represented in the folder are Wheeling galvanized steel baskets of half bushel capacity, with heavy swedged bodies of smooth steel with side handle and bail. The goods are galvanized after making and are practically water tight. Wheeling galvanized water pails in 8, 10, 12, 14, 16 quart sizes; Wheeling galvanized wash tubs in 18, 20, 22 and 24-inch sizes; Wheeling galvanized dry measures, with side handles and with side handles and bail, and Wheeling refrigerator pans are also shown. The dry measures and the steel baskets are also made in the same manner and from the same material but are finished in japan instead of being galvanized. The line is a very excellent one, and the folder includes capacities, measurements, descriptions and prices. It may be had upon application to the company as above indicated.

GREETINGS FROM MR. H. B. MORRIS.

A tastefully designed and most excellently printed holiday folder comes from H. B. Morris representing the Chas. Parker Company of 32 Warren street, New York City. It is in double fold or eight page form and is done in red and green with a rich holly border and in natural colors and a tasteful holly wreath upon its front title page. It comes with wishes of a Merry Christmas and a Happy New Year. A section of the interior relates wholly to the Parker product and the terminal line upon the same opening advises that "there is no method of making friends equal to the method of making good." The work is nicely gotten up. It is done upon deep cream antique laid paper. Enclosed with announcement is a pretty strip folder titled with the inquiry, "Are you the man"? In its open form this strip runs to a poem entitled, "Are You The Man" that is an excellent commentary upon certain people of pessimistic tendencies.

RETAIL HARDWARE DOINGS.

NEW FIRMS AND INCORPORATIONS.

Townsend, Mont.—Missouri Valley Hardware Company, incorporated with capital stock of $10,000.

Atlantic City, N. J.—The Chelsea Hardware Company has been incorporated with a capital stock of $125,000.

Elkhorn, Ia.—Chris Johnson has opened a hardware store.

Bemidji, Minn.—Jarrard & Covington have opened a hardware store.

Hettinger, N. D.—Bonzer Bros. have opened a hardware store.

BUSINESS CHANGES.

Little Falls, Minn.—Ellenbecker & Goulet have sold out their hardware business to the Little Falls Hardware Company.

Grinnell, Ia.—W. S. Slack has sold his hardware business to W. B. Curry.

Leigh, Neb.—A. H. Philson has disposed of his interests in the hardware business to Wm. Wenk, Sr.

Fremont, Ind.—Cotton & Cotton have purchased the J. E. Taylor hardware store.

Waterloo, Ia.—Schiel & Corson hardware firm will dissolve partnership, Mr. Corson retiring.

Jefferson, Ia.—The Lawton hardware stock was sold at auction to E. H. Carter.

Terre Haute, Ind.—Edgar Dick Hardware Company has purchased the hardware stock of Rector & Polson.

Ypsilanti, Mich.—Louis K. Foerster succeeds F. L. Shaefer.

North Freedom, Wis.—John Hainstock has purchased the North Freedom Hardware Company's stock.

Auburn, Ia.—J. B. Williamson has purchased the hardware stock of V. J. Barry.

MISCELLANEOUS.

Lexington, Miss.—Beall Hardware Company, fire loss.

Davenport, Ia.—Louis Hansen's Son has increased capital stock from $30,000 to $100,000.

Greenbush, Minn.—T. E. Thompson, hardware dealer, loss $5,000 due to fire.

Toledo, O.—Frank B. Test's hardware store burglarized. Loss $200.

Scranton, Pa.—The City Hardware Company, fire loss.

Auburn, Wash.—The hardware store of Harper & Hooper recently burglarized.

OBITUARY.

Stewart F. Chisholm.

Stewart F. Chisholm died of heart failure in Princeton, N. J., on December 25, aged 57 years. Mr. Chisholm was a director in the Union Steel Screw Company of Cleveland, O., and was in other ways interested in hardware manufacturing and metal affairs. He leaves a widow. Mr. Chisholm was the son of William Chisholm, Sr., who is prominently identified with manufacturing interests in the city of Cleveland, Ohio.

George E. Needham.

George E. Needham, who for many years was at the head of the Garry Iron Roofing Company of Cleveland as its president and of the company as reorganized into the present company, The Garry Iron & Steel Co., died on December 20 following a brief illness. Mr. Needham retired from the business several years ago.

Advertising Department

Our readers are invited to send in copies of their advertisements in the local press for criticism. All communications should be addressed to the "Advertising Department" of THE AMERICAN ARTISAN.

Plain rules either with square corners or with round corners are very much in vogue at the present time for enclosing advertisements of moderate sizes and we find that many of the hardware advertisements that come to us are equipped with borderings of this character. A peculiar fact in relation to this feature of advertising work in local retail advertising is the fact that one will rarely find such enclosures shown in perfect form in the printing, even in cases where the type setting which the rule encloses is altogether correct and satisfactory. In many instances there are in the prints themselves glaring evidences of careless work and in other cases where apparently the rule work is improperly arranged it has been allowed to go to pieces because of lack of proper care in locking up forms. This is one of the points that retail advertisers should give attention to as faults of this character seriously injure the effectiveness of really good advertisements.

* * *

Winter goods exclusively are made the subject of a very good advertisement by the Boyce Hardware Company of Port Huron, Mich., as will be understood of course by an examination of their advertisement. The stove trademark illustration shows up exceedingly well for the reason that it has been drawn and engraved in a manner that is entirely suitable for

printing of this character. This should be made a note of by local retail advertisers for the reason that this is a class of engraving that always shows up well no matter how poor the general printing of the newspaper in which it is used may be. A comparison of the imprint of this and the imprint of the very good type which stands beside it would naturally convince one of the printing merit of the one above the other. The advertisement is very well arranged, a good story is told about the stoves and the brief catchy lines that call attention to other items are strong and sufficient. A little more space between the type and the border would have strengthened the advertisement. This advertisement occupied 5 inches double column in the *Weekly Herald* of Port Huron, Mich.

* * *

The advertisement of the John E. Bassett & Co., of New Haven, Conn., is an original and ingenious one for the reason that the goods offered, while relating directly to the hardware trade are such ones as are very infrequently considered in a general way or for

that matter thought of. Still these goods are a line in themselves, and they are of much more importance than commonly would be supposed. The manner in which the articles are presented in this advertisement is distinctly interesting and altogether attractive, but the roughness of the opening line is not in keeping with the refined text and is out of place. The advertisement is well made up and the illustration adds much interest to the topic as it is offered. The arrangement while very good, would, we think, have been strengthened materially by the allowance of more white space all round between the type and the enclosing rule. Possibly also the addition of something to indicate the company's general business might have been beneficial for localities reached by the paper where the firm name and its business is not generally known. The bordering rule work is poorly put together, and it is a pity that it is so, in connection with so good an advertisement. This advertisement occupied in its original form 5¼ inches double column in the New Haven (Conn.) *Evening Leader.*

When a new customer comes in make every effort to find out his name without asking the party directly concerned. You will find the next time he comes in your place of business and is called Mr. So and So, he will beam with pleasure, mentally wondering how the deuce you knew him.

Heating and Ventilating

WANTED PRACTICAL IDEAS.

We are very glad to be able to add two new names to the correspondence that is beginning to be attracted to this very practical department. In addition to the correspondence that has been published under this head we have heard from a number of furnace workers whose letters have indicated a desire to contribute to this department, but these writers were more or less fearful that they would be unable to send their ideas by letter in proper shape for publication. We have endeavored to make it plain that what we want is ideas, experience and expression of thought from men who know what is what concerning the installation (or as it is to a considerable extent known setting) of furnaces. Really we do not care a "rap" about the words that are used in writing us about these matters, if the words will convey to us the ideas and experiences of the writers. We thoroughly understand of course that there are very many furnace and other experts who know positively everything about the business who have never given any time whatever to literary work, and we know also on the other hand that the woods are full of thoroughly fluent writers who know no more about a furnace than a rabbit, and the furnace understanding people who are asked to contribute to this department may rest assured that nothing they may write us for publication will be allowed to get into print without having been duly edited and put into correct form. Give us your ideas. Give us some of your experieneces. Give us some of your thoughts about furnace work. If you know of only one good kink about furnace work and you know it is good tell us about it. The following correspondence will be found of interest and value. We are glad to be able to submit it to our readers as we are altogether sure it will interest them.

To The American Artisan:

I find your "Wanted Practical Ideas" very interesting, and my purpose in writing is to help this column along. I am a practical furnace man and have worked at the business a great many years, and although I am a pretty old man I am still at it and I believe I know all the ordinary kinks about furnace work, so I don't have any trouble with my work nor with the furnaces I sell, as they are both good ones. One is a steel furnace and the other is a cast-iron furnace, and I sell them and use them according to requirements. But I never allow myself to put in a cheap or poor outfit. I am doing a great deal of installing in farmers' homes, and here I run up against some tough propositions in the way many farm houses are built, for I guess they were never expected to have hot-air furnaces in them, but this trade is increasing very fast. I am from the East and am now in a good Western town. My worst trouble here for the last five years has been on account of a competitor who is a good fellow, much younger than I am, and when he came here he decided that the hot-air furnace business was a good thing for his store and he went to work to get the business. He doesn't know a single thing about furnaces or installing them, but he is a worker and he has sold a good many and managed to put them in somehow or other, but he has done some frightfully bad jobs, and I soon found that he was hurting the furnace business generally. For a while I didn't know what to do. I liked him very well, but I couldn't stand the way he did business, for he was in the habit of selling any kind of a furnace that suited his fancy and seldom two alike in succession. If a person wanted a cheap furnace and a cheap outfit he would get him the cheapest thing in the country and patch it up somehow for any price that would make him a dollar, and so things went until I finally got disgusted and went over and gave him a piece of my mind, but he only laughed at me at first, but afterwards came to see me about it. Well, the whole matter resulted in my taking him in hand and telling him everything about the business and promising to help him plan his jobs. His work has improved and for the last three years the furnace business has improved and he has quit selling cheap stuff entirely. We now have an understanding about the furnace business and together we are each making more money out of the furnace business than both of us would have made if we had let things go on as they were going. I have put in several good high-priced plants to take the place of some of his cheap ones and have done a lot of expensive work on others, and he seems to be glad of it, as long as he can't get the business. I think it is a good plan to work along with your competitors and have good understandings with them. I believe we would both have been out of the furnace business now if we hadn't come together, for his customers were getting prejudiced against hot-air furnaces generally before I helped him and we fixed things up between us. I will write you again some time.

Respectfully

January 7, 1908. George Powers.

To The American Artisan:

"Noticing in your issue of January 4, under the head of "Wanted, Practical Ideas," an invitation to practical furnace men to contribute their ideas and experiences relating to furnace work and furnace setting, I take the liberty of addressing you as per your request. I am quite confident that a furnace department of the character that you are endeavoring to establish, in which the practical ideas, practical experience and practical thought relating to furnace work come from furnace men who are actually engaged in the work, will be of great value to everybody concerned. I am therefore offering you my first contribution.

"My rule for installing furnaces provides first that the furnace should be placed in a position in the cellar or basement in a manner that will permit the shortest warm air pipes to serve the coldest parts of the house. The coldest winter winds come from the west and north, therefore the furnace should be located in a position that will favor the western and northern apartments. When the building is well protected from wind and exposure and the warm air pipes are short and have good upward slopes the furnace may be so placed as to have the hot air pipes about equal in length between the furnace and the register connections. Second, the furnace should be placed so as to assist in a proper distribution of the hot air through the pipes, even though such a location may make it necessary to use a long smoke pipe. Place the furnace with reference to the warm air pipes and not with reference to the smoke pipe or chimney flue. The greater upward pitch that can be given to the distributing pipes that lead away from the furnace the better, and if it is necessary, in order to provide the necessary pitch for the warm air pipes the bottom of the furnace should be lowered. Do not hesitate to put it below the level of the floor, even though it be necessary to provide a pit for it, and do not hesitate to make the pit deep enough to give a good upward pitch to the distributing pipes. The success of hot air furnaces depends very largely upon the activity of the circulation of the hot air in the distributing pipes that connect directly with the furnace itself, and very many failures in installations are due to the fact that sufficient upward pitch to the originating hot air pipes has not been provided. I am hoping that this suggestion may be of some assistance to the younger class of furnace workers. I would like to hear from other furnace men on topics relating to furnace heating and ventilation."

Very truly yours,

Dennison, O., Jan. 7, 1908. Lawrence Henry.

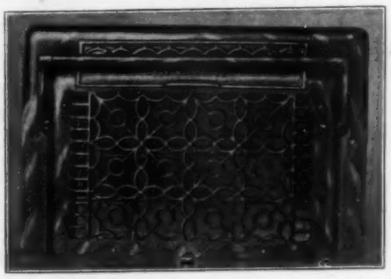
STEEL CASING RINGS.

There are few things, if any, in the line of ready supplies for furnace makers, fitters or installers that are so convenient, helpful and reliable as are modern, correctly made and absolutely accurate steel casing rings. Without the proper appliances for making such rings it is practically impossible to secure accuracy in their making, and those who have to do with casings and their fitting and setting up are quite well aware that two or three different sized and shaped rings will hardly work on case diameters that are all uniform in dimensions, and they also are aware that without a snug, firm, correctly fitted casing a job can hardly be made tight and presentable. It would seem, then, that the positively accurate machine-made steel furnace casing rings that are produced and offered by the Walworth Run Foundry Co. of Cleveland, Ohio, have come to hand none too soon. These appliances leave no room for guessing in fitting of furnace casings as they are made exact in dimensions and moreover they describe accurate circles for circular case work, and are made for double casings, single casings, full circles or parts of circles for full or other cast fronts, and are so devised as to connect into the cast fronts and secure accurate fitting.

Nothing that relates to furnace setting affords so much relief and so great satisfaction as the perfect fitting exact steel casing rings. They are made with or without lugs or to any plan or measurement that may be desired.

WATERLOO REGISTERS.

It is quite generally conceded that in all situations air for heating after its contact with the highly heated plates from which it has derived its heated state positively requires the addition of moisture to render it comfortable, healthy and normal. To a very great extent hot air furnaces are provided with water pans



Side Wall Register with Water Pan.

so placed within their casings as to provide a restoration of the moisture that of which highly heated air is necessarily deprived, and these devices serve their purposes of course when the supply of water in the furnace water pans are kept supplied. But as this supply and its proper replenishment must naturally depend upon the thoughtfulness and care of whoever may have charge of the operation of the furnace, it would seem to be unfortunate that the receptacles therefor are so generally out of sight and so remote from constant observation. With the coming of the modern deflecting side wall register, which bids fair to displace floor registers to a very great extent, there has been provided by the Waterloo Register Company of Waterloo, Iowa, a most excellent air moistening attachment therefor, in form of a suitable water pan that is a part of the register itself, through the agency of which the restoration of the required moisture to the hot air passing through the register is accomplished. To this end a very neat water pan in form of a metal drawer is given a place in the register equipment. It is so arranged as to be beyond observation and is really a part of the ornamentation of the register front, while dispensing its life-giving moisture to the highly heated air, but it is always conveniently at hand where it will not be overlooked or forgotten or neglected and where it may be wholly removed readily and cleansed and its water supply replenished quite easily. The company has made a distinct hit with the device and also with the Waterloo side wall register of which it is a feature. There are numerous patterns of these registers all of which are nicely illustrated and described in the company's trade literature. In writing kindly mention THE AMERICAN ARTISAN.

BOYNTON FURNACE CO.'S ANNIVERSARY.

During the year 1908 the Boynton Furnace Company celebrates its 60th anniversary. The company and the firm which preceded its incorporation many years ago, have been witnesses of the growth of the furnace business in this country and to the perfection of hot air furnaces as they have been brought about in many years of experience and observation, and up to the point where the very excellent and thoroughly satisfactory constructions that are offered by themselves and others at the present time. Going back to the beginning we find that as a rule hot air furnaces were commonly little else than enclosed stoves of the plainest types, that were so encased as to permit heat radiated therefrom to be conveyed in different directions through conduits working along the same lines as are used to-day, although then in a primitive and somewhat dangerous state as related to protection against fire.

Naturally many of the company's older patterns have been discarded and abandoned and their places have been taken in the march of progress by constructions that have been found more suitable for the heating purposes intended. Throughout the entire period of the company's existence its record has been one of enterprise, energy and thorough fairness and thus it has won a place in the estimation of furnace dealers that is not only creditable to them but which must be entirely enjoyable. The exact day of the 60th anniversary when it occurs will be made note of in the columns of THE AMERICAN ARTISAN.

The regular quarterly dividend of one per cent was paid to holders of common stock in the American Radiator Company on December 31. The disbursement of dividend on first preferred stock will be paid on February 15 upon which date it will be due. On March 30 of last year the company declared a dividend of 2 per cent on common stock.

Tinshop

DEVELOPMENT OF A MITER ONTO A WASH.

BY LOUIS OEHRING.

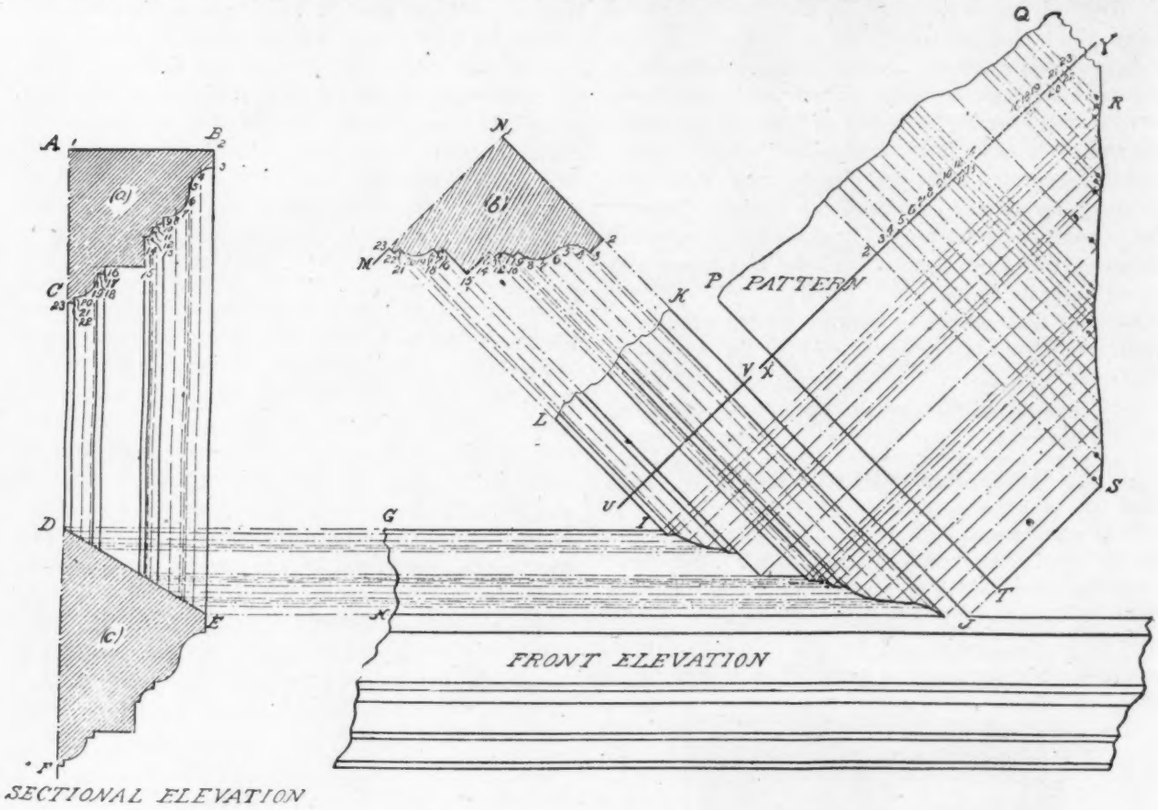
This is a miter that is frequently used in cornice work. It is like all other pattern problems, a problem in practical projection drawing. The principal requirement is to find the miter line in such a position that the measurements can be taken from it.

First draw the section at (c) shown by D E F of which D E represents the wash, the balance being of no importance to develop the miter, merely representing a molding that may be situated beneath the wash. Then draw the section (a) and shown by A B C in the position here shown. Then draw the front elevation of the wash, here shown by G H I J and the inclination of the molding as shown by I J K L; now draw the section at (b), in the position here shown, and designated by M N O. Divide the curved parts of section (a) and (b) into the same number of equal spaces, and shown by the numerals from 1 to 23.

From section (a) project all points to the wash as shown, parallel to line A F and from section (b) project indefinite lines parallel to N J. From the wash project parallel lines to G I towards J until they cross those represented by like numbers from section (b). Through these points established by these projectors crossing, draw the irregular line I J, this will be the true view of the miter line in the front elevation and from this the necessary measurements can be taken to develop the miter.

To get the stretchout for the pattern we assume that we are taking the measurement from a section through line U V and draw the line X Y as a continuation of this line, which must be drawn at right angle to J K. The stretchout is taken from the section (b) by taking the spaces from one number to the other and setting them off on the stretchout line X Y in their proper order and through these points draw lines parallel to J K.

From the miter line I J draw lines parallel to X Y from points that represent like numerals projected from section (b), to lines in pattern having the same numerals. Through the points established by the crossing of these lines draw the irregular line R S T, and we have as here shown by P Q R S T the completed pattern. The small circles on the pattern represent the bends that will be necessary to mark for forming.



DEVELOPMENT OF A MITER ONTO A WASH.

FERDINAND DIECKMANN'S TUBING.

We are advised that the new lock seam galvanized and bright tin tubings that are being offered by Ferdinand Dieckmann of Station B, Cincinnati, Ohio, are meeting with very great favor in the trade and are much in demand. This is a special product of the company for which there are many uses and which owing to the fact that so satisfactory a line may be had, will undoubtedly create many new uses. For the present there are among the steady uses for the tubing those of ice boxes, drains, porch and small roofing conductors, speaking tubes, lighting system requirements, incubators and many features of railway car work and drainage. The tubes and the elbows that are required for them run 1 and 1¼ inches in

diameter, both in tin and in galvanized and the galvanized ones are made up completely and perfectly and then galvanized after the formation has been entirely accomplished. The tin goods which are used largely for speaking tubes, are made of the heaviest tin, and the elbows which accompany them are made by a one-piece process. Since the introduction of this line of tubing we are advised that many new uses have been found for it.

Ferdinand Dieckmann, who is the manufacturer of these wares, is well known to the trade as the inventor and patentee of the one piece conductor pipe elbow which has to a large extent superseded all other conductor pipe elbows. Literature and prices may be had upon application to Mr. Dieckmann as indicated above. Kindly mention THE AMERICAN ARTISAN.

ROBINSON'S SHEET METAL MACHINERY.

In the line of sheet metal work machinery there are few manufacturers whose name and whose products are so well known as are the products and the name of the J. M. Robinson Manufacturing Company of Cincinnati, Ohio. This establishment has been in the field in which they are now working for a great many years, and among sheet metal workers both in large establishments and in ordinary small factories working men have learned the ways of nearly all kinds of the Robinson machinery, and as a result it is altogether likely that some of the best sheet metal work that has been done has come out of machines produced by them. The company manufactures machinery for producing all classes of sheet metal work from both heavy and light gauges of sheet iron and steel and its reputation for successful construction of heavy bending machines for both hand or power work from 30 inches in length up to 10 feet in length and from 10 gauge material and lighter up to one-fourth inch plate and lighter is such as find few equals in this country or elsewhere. The company is prepared to take on orders at any time and it has been demonstrated that their promise of fulfillment has in all cases been met with exactness and promptitude. A very good catalogue of the company's devices and prices may be had upon application. In writing kindly mention THE AMERICAN ARTISAN.

SHEET IRON FOR AFRICA.

Consul-General Julius G. Lay, writing from Cape Town, says that when the enormous quantities of galvanized sheet and corrugated iron used in South Africa are noticed in the form of iron buildings, iron headings, iron roofs, iron fences, iron tanks and iron gutterings, it is very surprising that some reasonable proportion is not manufactured in the United States.

In 1905 the declared value of corrugated iron imported into Cape Colony amounted to $833,718. Of this amount $812,224 was for that of British manufacture, the quantity imported from the United States being so small as not to be separately defined in government statistics. Of the total amount imported that which was entered for consumption in Cape Colony alone was valued at $764,916.

The customs tariff of May, 1906, provides a duty of 3 per cent ad valorem on foreign manufactured iron, while that of British manufacture is entered free. This small preference does not seem adequate to keep American manufactures out of the market altogether. Cape Town importers claim that on the small quantities which have been imported from America the landed price exceeded that of the English by only about $1.82 per ton. It is stated by those in the trade and handling very large quantities of corrugated and sheet iron that it is just a matter of price. If the American manufactured iron could be delivered at equally low prices as the English, a fair portion of this trade would go to America. The American price must necessarily be low enough to offset the preferential duty of 3 per cent.

A Cape Town firm in 1906 gave a trial order for 100 tons of American corrugated iron, and were so satisfied with the quality that they were willing to place further orders for 200-ton lots if prices were advantageous; but as the price was slightly higher than that of English manufacture their orders went to Great Britain. This firm state that they gave the American iron a thorough test, by curving, straightening, and then recurving it, and found it equal in every way to the very best iron of English make, as it stood the test without cracking. The corrugations were also said to be quite as satisfactory as the English.

NOTES AND QUERIES.

CHEAP CUTLERY.

From May Novelty Company, Richmond, Virginia.

Can you give us the name of some firm who makes cheap cutlery?

ANS.—Ira J. White & Sons, Newark, N. J.

SMOKE CONSUMER.

From Stockmann Bros., West Burlington, Iowa.

Can you give us the name of a firm that manufactures a smoke consumer to attach to smoke pipe on a hot air furnace?

ANS.—Aeolipyle Mfg. Company, 45 E. 42d street, New York.

LEG BANDS FOR POULTRY.

From Chas. Beed & Son, Hampton, Ia.

Can you give us the name of a manufacturer of aluminum leg bands for poultry?

ANS.—Cyphers Incubator Company, Buffalo, N. Y.

SCREW GAUGES.

From Hamblin & Son, 11 Rowley street, Walker, Iowa.

Where can we get gauges for common flathead wood screws to determine the number of the screw?

ANS.—Machinists' Supply Company, 16 So. Canal street, Chicago.

IRON STAIRWAY.

From E. D. Shellenberger, Mound City, Missouri.

Please give me the name of a manufacturer of iron stairways?

ANS.—F. P. Smith Wire & Iron Works, 100 Lake street, Chicago.

BEATS ALL WASHING MACHINES.

From C. I. Fawley, Coggon, Iowa.

Can you give me the address of the manufacturer of the Beats All Washing Machine?

Ans.—Beats All Washing Machine Company, Des Moines, Ia.

DENATURED ALCOHOL.

From M. A. Thorpe, Darien, Wisconsin.

Please advise me where I can get information concerning the manufacture of denatured alcohol and get stills therefor?

Ans.—Write Bureau of Manufactures, Department of Commerce and Labor, Washington, D. C.

ITEMS.

The Cortright Metal Shingle Advocate, a monthly periodical issued by the Cortright Metal Roofing Co. of Philadelphia, Pa., has appeared for December, 1907. It is as usual bright and interesting.

Mr. W. J. Burton of the W. J. Burton Company of Detroit, Michigan, manufacturers of tinners' hardware and roofers' supplies, was among the recent callers at the office of THE AMERICAN ARTISAN.

Mr. T. Vaughan Stapler, who heretofore has been manager of the advertising department of the American Sheet & Tin Plate Company, announces his future connection, beginning with January 1, 1908, with Hill & Stocking, advertising agents, at Pittsburgh, Pa.

A handsome and very practical post card comes to us from the Eller Mfg. Co. of Canton, O. On its reverse side is a splendid photo in colors of the Holy Cross College of Worcester, Mass., a very large institution, and a line tells us that three acres of Eller's metal ceiling are used in the building.

We are advised by Secretary W. H. Barnard of the National Association of Master Sheet Metal Workers of the United States, from his office in Norfolk, Va., under date of January 4th, that there is an immense amount of interest being shown by master sheet metal workers in association affairs throughout the entire country. He states also that it looks very much as if considerably more than ordinary interest will be taken in matters of this kind during the coming spring.

Authority to issue $30,000 in certificates was on December 21st granted by the court for Geo. W. Johnson, receiver for the New Castle Stamping Company, of New Castle, Pa. The certificates will bear 6 per cent interest and will be liens upon all the property of the company excepting a $50,000 mortgage upon the $150,000 plant. There is said to be on hand about $100,000 new material, which the receiver is authorized to work up at once, and he is authorized to operate the plant for that purpose.

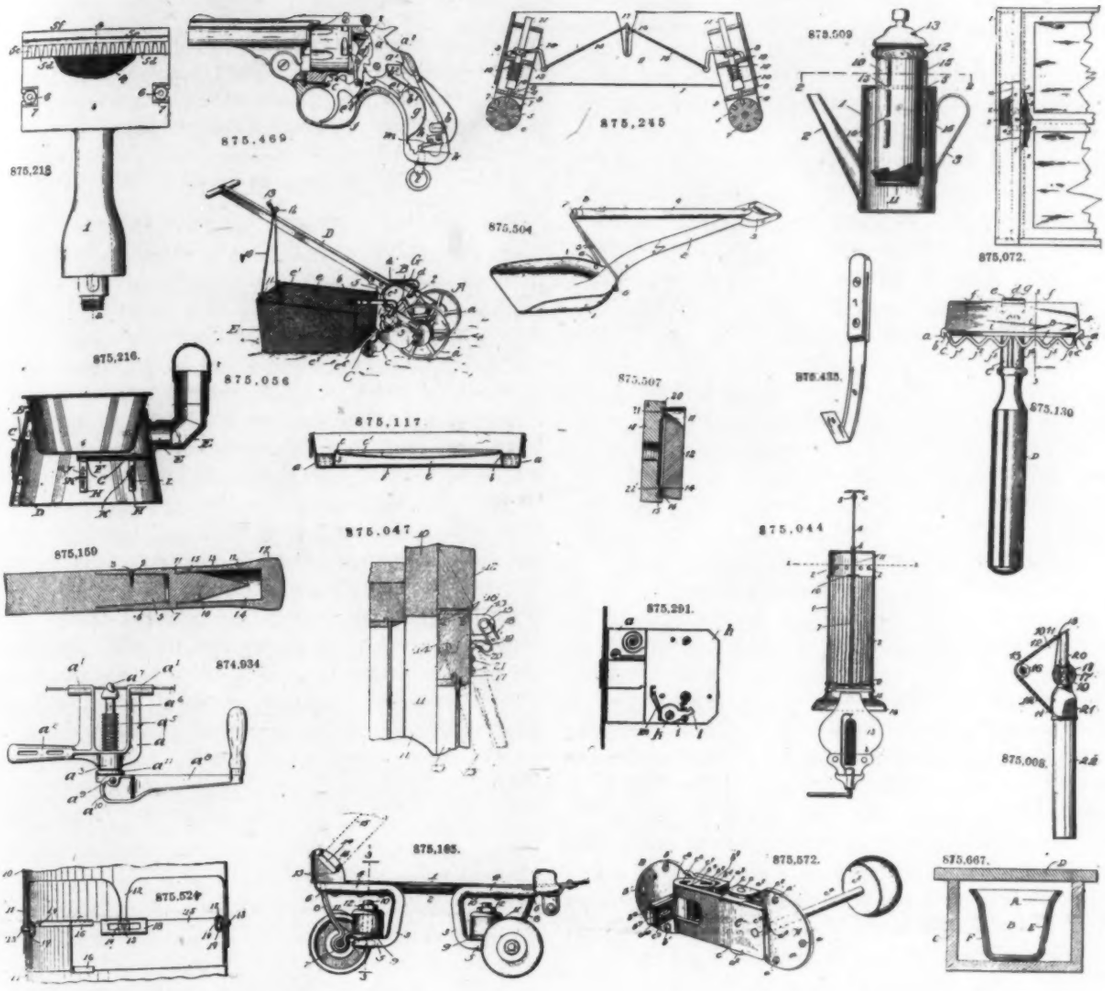
The local association of Master Sheet Metal Workers of Brooklyn, N. Y., is arranging to have an entertainment and reception on the evening of January 22d. The officers of the national body have all been invited to attend, and President Seabrook is to make an address before the meeting. In addition to this, the entertainment will embrace a real live vaudeville show which will include the very best talent to be had, and a thoroughly good orchestra will furnish the music. It is expected that it will be one of the swellest meetings that have been held by any of the local branches of the National Association of Master Sheet Metal Workers. Every master sheet metal worker in the United States is invited to attend. The entertainment will be held at Schwaban Hall at Knickerbocker avenue and Myrtle street, Brooklyn. In this, as in other ways, the Brooklyn local has proved itself to be one of the livest branches in the country.

At a meeting of the Master Sheet Metal Workers' Association of Milwaukee (local) held on the evening of January 8 at Milwaukee, Wis., the following officers were elected: President, Louis Hoffman; vice-president, August Bartelt; treasurer, J. Hollitz; secretary, Paul L. Biersach. The meeting is said to have been a very good one, in which a number of very interesting topics were brought forward for discussion. After the adjournment of the regular meeting the newly elected officers, as per an advance understanding, provided refreshments, both liquid and otherwise, and the gathering remained enjoying a royal good time until long after midnight.

An important change has been made in the personnel of one of the largest and oldest tinware manufacturers in Indianapolis, Thomas E . Cooney, of Cooney & Geiger, retired on January 1st, on account of ill health, and a new corporation styled Sullivan-Geiger Co., has been formed, to succeed to the business. The president is Russell Sullivan, the vice-president is Henry C. Geiger, the secretary and treasurer is William George Sullivan. The factory superintendent is Edward Allred. The new blood entering into this concern are two sons of George R. Sullivan, well known to the metal world, for many years being of the firm of Tanner & Sullivan. It is the intention of the new company to materially increase the business both in the manufacturing and distributing. The plant is being overhauled, new machinery installed, the office and salesroom are being reconstructed, and the future promise is bright for the new house of Sullivan-Geiger Co.

Tanner & Co., of Indianapolis, Ind., well known in the tin plate and sheet metal world, are expanding their business. In order to properly cater to the increase in their business, they have secured the five-story and basement building at 215 and 217 McCrea street. This building adjoins the rear of their present premises, 216 and 218 South Meridian street, so they will have their structure run through from Meridian to McCrea streets. The new building is 42 x 100 feet and is being overhauled to meet the requirements of Tanner & Co.'s business. An enormous freight elevator is being constructed. The floors are laid in concrete, then covered with double wooden floors, which prevents the sweating and rusting of iron. With their three large freight elevators, the firm will be in position to handle their stock rapidly and maintain their present reputation of being quick shippers. Tanner & Co. have been noted for a long time as being specialists in tinners' and sheet metal workers' supplies and they carry much more complete and better assorted stocks than do most jobbers. With the increase of their warehouse space they will be able to carry in stock twenty-five additional sizes and gauges of sheet iron in addition to the one hundred now carried in stock. One of the specialties of Tanner & Co. is genuine, re-hammered charcoal galvanized iron sheets, and they have now in stock complete lines of sizes in 20, 22, 24, 26, 27 and 28 gauge.

NEW PATENTS.



874,934—Fence Wire Tightener. Henry Broome and Charles J. Bowlus, Springfield, Ohio. Filed April 8, 1907. Serial No. 367,083.

875,008—Safety Razor. Joseph J. Steinharter, Newark, N. J., assignor, by direct and mesne assignments, to the Newark Safety Razor Company, Newark, N. J., a corporation of New Jersey. Filed March 16, 1907. Serial No. 362,609.

875,044—Heater. Cotter T. Bride, Washington, D. C. Filed April 24, 1907. Serial No. 369,927.

875,047—Hanger or Separable Hinge for Storm Sash. Frank Bursick, Chicago, Ill. Filed April 24, 1907. Serial No. 369,975.

875,056—Grass Catcher for Lawn Mowers. Daniel Fergesen, Aurora, Ill. Filed July 10, 1906. Serial No. 325,555.

875,072—Sash Balance. Florin Harbach, Reading, Pa. Filed Nov. 17, 1905. Serial No. 287,764.

875,117—Roasting Pan. Percy Scott, Montreal, Quebec, Canada. Filed Nov. 25, 1905. Serial No. 289,067.

875,130—Safety Razor. Philip K. Stern, New York, N. Y. Filed Oct. 8, 1907. Serial No. 396,368.

875,159—Tool Handle. Herbert M. Crow, Oakdale, Cal. Filed Sept. 12, 1906. Serial No. 334,273.

875,165—Roller Skate. Claude M. Faust and Martin B. Grout, Chicago, Ill. Filed Sept. 5, 1907. Serial No. 391,417.

875,216—Portable Furnace. Gustave E. Ruhmann, Schulenberg, Tex. Filed Aug. 13, 1907. Serial No. 388,349.

875,218—Gas Burner. Edwin Ruud, Pittsburg, Pa. Filed May 9, 1907. Serial No. 372,809.

875,245—Base of Cook Stoves. Alice Darrow, Simpson, Kan. Filed Aug. 28, 1907. Serial No. 390,562.

875,291—Lock. August Schmidtke, Königsberg, Germany. Filed May 24, 1907. Serial No. 375,421.

875,435—Culinary Scraper. William A. Johnston, Sandy Bay, Hobart, Tasmania, Australia. Filed Jan. 24, 1907. Serial No. 353,801.

875,469—Automatic Safety Appliance for Locking the Hammer and the Sear of Small Arms. Joseph Tambour, Nanterre, near Paris, France. Filed Oct. 8, 1906. Serial No. 338,019.

875,504—Scoop Handle. Hervey D. Clark, Arcola, Ill. Filed May 13, 1907. Serial No. 373,365.

875,507—Method of Applying Molten Solder to Sheet Metal. William G. Daugherty, Baltimore, Md. Filed Oct. 13, 1905. Serial No. 282,580.

875,509—Cooking or Culinary Utensil. Leroy J. Ellis, Fanwood, N. J. Filed Jan. 5, 1906. Serial No. 294,765.

875,524—Stovepipe Fastener. Gilbert O. Helvig, Dawson, Minn. Filed July 16, 1907. Serial No. 383,963.

875,572—Door Fastener. Matthew J. Flannery, Bozeman, Mont. Filed Oct. 31, 1905. Serial No. 285,249.

875,667—Method of Producing Enamel Lined Articles of Hollow Ware. Edward B. Manning and Charlotte R. Manning, Meriden, Conn.; said Edward B. Manning assignor to said Charlotte R. Manning. Filed March 8, 1907. Serial No. 361,386.

Trade Report.

HARDWARE.

There has been no change in the condition of hardware affairs whether as relates to the jobbing or retailing divisions thereof since our report of last week. Many of the inventories have been taken and the computations have been shaped up, but in other cases inventories are still in progress. There are a great many Eastern hardware manufacturing representatives in the Western market and a great many regular traveling salesmen and necessarily a good deal of time must be devoted to them by jobbers as there is always more or less readjusting of lines and rearranging of sources of supply at just this time of the year. We learn that as far as computations have been made the hardware business of 1907 both with retail merchants and with jobbers has footed up far better than was supposed would be the case. This condition, however, should really have been anticipated for the reason that the first three-quarters of 1907 up to October witnessed a very remarkable prosperity in all branches of the trade and that of the final quarter of the year, although slightly below general expectations, was on the whole very good except in a comparative way. Hardware manufacturers are experiencing a quite unusual activity for this period and specifications covering the first two quarters and also the entire year are being placed very freely. The feeling of unrest and uncertainty that was created by the money disturbances and which continued for a brief time has almost wholly disappeared and now that confidence has been restored both retail and jobbing merchants are prepared to go ahead and fill up their assortments to their normal proportions.

Recent action relating to tin and sheet metal affairs have resulted in readjustments of prices of tin plate and galvanized and black sheets. Bright tin has been reduced 20c per base box of 100 pounds. Galvanized sheets have been reduced $4.00 per ton and black sheet iron $2.00 per ton. Outside of these changes, which have been largely anticipated and which will tend to stimulate buying that has been hesitating, there is little to be noted in the way of altered prices. Prices generally on all lines of hardware are exceedingly firm and entirely unyielding there being in sight no incentives for reductions in any direction. Some of the staples, however, are expected to fluctuate to a slight extent from time to time owing to varying conditions which do not affect general hardware at all. The outlook for hardware business is said to be excellent and we find that collections in the Chicago market and elsewhere throughout the Northwest are quite as good and possibly even somewhat better than they are usually found to be at this period of the year.

Wire products continue firm and the expectation is that the Southwestern and Western demand for both barb wire and plain wire fencing will open a campaign of wire activity within a comparatively few days. The market is firm on wire nails at $2.23; painted barb wire, $2.38; galvanized barb wire, $2.68; smooth annealed wire, $2.08; smooth galvanized wire, $2.38; polished staples, $2.23; galvanized staples, $2.63. Carload lots to retailers, 5 cents higher; less than carload lots, 15 cents higher, Chicago delivery.

TIN PLATE.

Little buying movement has been noticeable in tin plate during the week, as there has been evident no haste in placing orders for the year's general requirements. Pig tin has for some time experienced weaknesses and several reductions have been reported in the metal. Because of this and an anticipated readjustment in prices of black sheets a waiting situation has prevailed for several weeks. During the current week, however, a readjustment of prices was made and as a result of both the conditions here referred to tin plate has been reduced 20 cents per base box of 100 lbs. Prices now hold at $3.70 f. o. b. Pittsburg regular, with independent mills quoting $3.65. Price f. o. b. Swansea for tin plate is 12s. 1½d. Arrivals of tin plate for the week ending Dec. 28 were 11,891 boxes New York and 75 boxes at Philadelphia. Stocks of tin plate in Swansea on Dec. 19 were 143,545 boxes, able to make a substantial advance, based on actual against 137,287 at the same time a year ago.

For prompt shipment, f. o. b. mill:

Coke, tins, 14x20, I. C.	$3.85@3.90
Coke, tins, 14x20, 100 lbs.	3.70@3.75
Coke, tins, 14x20, 95 lbs.	3.65@3.70
Coke, tins, 14x20, 90 lbs.	3.60@3.65
Charcoal terne, 20x28, I. C.	7.30@7.35
Charcoal terne, 20x28, 200 lbs.	7.00@7.05

Usual differences for odd sizes and weights.

COPPER.

There is apparently a movement on foot to get all the copper out of the country possible, with the hope of so reducing supplies in this country to make an artificially higher price than is now prevailing. It is thought in some quarters that should the producers be able to make a substantial advance, based on actual statistics of the metal in this country, that it would stimulate a buying movement among consumers.

It is pointed out that as there have been nearly 8,000 tons of copper shipped abroad during the past six days, that it would not take long at that rate to denude the country of every pound of the surplus. The outlook for the maintenance of present prices, or even an advance, is very promising. With the successful financing of the metal sent abroad and the improved financial conditions, it looks as though the market would be stable until the buying movement for consumption started in. New York Metal Exchange prices were practically unchanged during the week at 13⅝c to 13⅞c for lake, 13½c to 13¾c for electrolytic and 13¼c to 13½c for casting copper. The market was called firm.

The London market presented a firmer appearance, thought to be due to manipulative influence. Best selected gained 10s, to £66. Standard spot was up 17s

6d. to £62 15s, while futures advanced £1, to £63 10s. Trading was of good proportions.

Exports from Baltimore were 911 tons, making a total through New York and Baltimore since Jan. 1 of 7,900 tons. Arrivals at New York were about 75 tons matte, and at Baltimore about 600 tons copper from Liverpool.

Extreme fluctuations for this year:

	Highest.	Lowest.
Electrolytic copper, spot	25½	11¾
Lake copper, spot	25¾	12⅛
Casting copper, spot	24½	11⅝

SHEETS.

The sheet market is in substantially the same condition as was reported by us a week ago. It is still exceedingly quiet and to a great extent mills are still being cleaned up, inventories are being summarized, and naturally nearly all of the mills are closed down for the present for this reason. It is expected, however, that all of them will be running again with the opening of another week. As far as we can learn concerning the summaries that have been deduced from inventories and recapitulations, the sheet business of 1907 has resulted profitably for the mills. Within a few weeks past there has been a sharp decline in the volume of orders and it has been supposed that to a very great extent this condition has grown out of the withholding of orders by sheet metal consumers in the hope of ultimately placing them at figures below the then prevailing markets. Whether as a result of this attitude or for other reasons we are unable to state, but we have information that the tin and sheet associations have taken action in the matter of prices and as result tin plate is said to have gone off 20c per box of 100 pounds, galvanized sheets were reduced $4 per ton and black sheets $2 per ton at the mills. These readjustments are not unanticipated. They have grown out of general readjustments in steel prices, and recent material reductions in prices of pig tin. These figures are now in effect.

There is in process a rapid awakening of all the construction and building interests and also of larger industrial manufacturing interests. These influences are already strongly felt in the sheet market and it is reasonable to suppose that after a very short lapse of time the sheet mills will be found to have on hand all of the business they can take care of with any degree of satisfaction or promptness.

The following prices are for 500-bundle lots and over, f. o. b. mill:

		—Galvanized—	
	Net.	Net.	List.
No. 30	$2.75	$4.05	21
No. 29	2.65	3.80	19
No. 28	2.50	3.65	17
No. 27	2.40	3.35	16
Nos. 25 to 26	2.35	3.15	15
Nos. 22 to 24	2.30	2.95	14

SHEET ZINC.

Demand for sheet zinc is of small proportions, business being of a more or less routine character. Prices are easy on the basis of $7.00 per 100 pounds f. o. b. smelter, with 8 per cent discount. There is no charge for extras. Prices on cask lots are held at $7.05 to $7.15 per 100 pounds.

IRON BARS.

Business in iron bars continues confined to small lots for immediate shipment. Consumers are only taking immediate requirements. Prices are maintained at 1.76c to 1.81c tidewater. In Pittsburg there is a good business in small lots for prompt shipment, and prices are firm at 1.60c to 1.65c.

PIG IRON.

The past three months in pig iron has shown a reduction of output amounting to a ratio of 17,000 tons per annum; the annual ratio of the first three quarters of 27,000 tons and the last quarter a per annum production of but 12,000 tons. As a result there is little iron in sight anywhere, the supply having followed quite closely the actual sluggish demand. Southern iron continues to be the interesting and to an extent the basing feature in the iron market. Iron is at the present time in better request and in distinctly better tone than for many weeks, and an active movement in the general market is looked for.

Pittsburg reports sales of good tonnages of Bessemer for immediate delivery at $18.50; and No. 2 southern foundry 25,000 tons at $13.50. A belief exists that there is an effort being made to force southern pig more generally into the northern market. The Chicago markets reports increasing inquiry and an unusually light supply in smelters' yards.

CHICAGO MARKET.

Lake Superior charcoal	$23.00
Northern foundry No. 1	$19.00@19.50
Northern foundry No. 2	18.50@19.00
Northern foundry No. 3	18.00@18.50
Southern foundry No. 1	17.85@18.35
Southern foundry No. 2	17.35@17.85
Southern foundry No. 3	16.85@17.35
Southern foundry No. 4	16.35@16.85
Southern No. 1 soft	17.85@18.35
Southern No. 2 soft	17.35@17.85
Southern gray forge	16.10@16.60
Southern Mottled	15.85@16.35

PITTSBURG MARKET.

No. 2 foundry	$16.90@17.90
Grey forge	16.65@17.65
Bessemer	19.90
Basic	17.80@18.40

BIRMINGHAM MARKET.

No. 1 foundry	14.00@14.50
No. 1 soft	14.00@14.50
No. 2 foundry	13.00@13.50
No. 2 soft	13.00@13.50
Gray forge	11.00@12.00

Rogers, Brown & Co., Cincinnati, will say in their weekly report: Improvement in the iron trade is manifest by better and more earnest inquiry and increase in sales. The week has seen some fair business put through and the prospect is fair for larger tonnage in the near future. The market on Northern and Southern iron is steady, with better feeling than for some time, and it is very evident that many consumers consider the present figures bottom prices and certain it is that their judgment has been borne out by their actions. Six months and first quarter business have the call, but there have been some inquiries for the year.

Pig iron production continues to be curtailed, and at the present time it is reported that production is proceeding at the rate of not more than a million tons a month. From figures now at hand it is possible to know the production during December, and this was even less than the general estimate of a million and a quarter tons. The output during the month being 1,234,279 tons.

Coke is quiet and rather uninteresting and the production in all fields is being curtailed. While prices are steady, the best promise is for the future after the general improved conditions get under greater headway.

Current Hardware and Metal Prices.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly

METALS.

FIRST QUALITY BRIGHT PLATES.

		Per Box.
IC	14x20	$6 80
IX	14x20	7 85
IXX	14x20	9 00
IXXX	14x20	10 25
IXXXX	14x20	11 40
IC	20x28	14 10
IX	20x28	16 10
IXX	20x28	18 55
IXXX	20x28	20 95
IXXXX	20x28	23 35

COKE PLATES.

Cokes, 180 lbs	IC	20x28	$ 8 50
Cokes, 200 lbs	IC	20x28	9 00
Cokes, 216 lbs	IC	20x28	9 50
Cokes, 270 lbs	IX	20x28	11 25

PIG IRON.

Lake Sup. Charcoal	$26 00@$26 50
North'n Fdy., No. 1	26 00@ 26 50
North'n Fdy., No. 2	25 50@ 26 00
North'n Fdy., No. 3	25 00@ 25 50
Northern Scotch Fdy	26 00@ 26 50
Ohio Strong Softeners, No. 1	26 30
Ohio Strong Softeners, No. 2	25 80
Southern Fdy., No. 1	23 40@ 25 40
Southern Fdy., No. 2	22 90@ 24 90
Southern Fdy., No. 3	22 40@ 24 40
Southern Fdy., No. 4	21 90@ 23 90
Southern No. 1 Soft	23 40@ 25 40
Southern No. 2 Soft	22 90@ 24 90
Southern Gray Forge	21 40@ 23 40
Southern Mottled	20 90@ 22 90
Southern Silveries, 4 to 6 per cent Silicon	27 40@ 29 40
Jackson Co. Silveries, 8 to 10% Silicon	31 40@ 33 40
Ala. and Geo. Car Wheel	28 40@ 28 90
Malleable Bessemer	25 50@ 26 00
Standard Bessemer	25 50@ 26 50
Basic, Pittsburg	22 85

BLACK STEEL SHEETS.

Nos. 11-12	per 100 lbs.	$2 60
Nos. 13-14	per 100 lbs.	2 65
Nos. 15-16	per 100 lbs.	2 70
Nos. 17-21	per 100 lbs.	2 75
Nos. 22-24	per 100 lbs.	2 80
Nos. 25-26	per 100 lbs.	2 85
No 27	per 100 lbs	2 90
No 28	per 100 lbs.	3 00

GALVANIZED

No. 10	per 100 lbs.	$3 20
Nos. 12-14	per 100 lbs.	3 20
No. 16	per 100 lbs.	3 15
Nos. 17-21	per 100 lbs.	3 30
Nos. 22-24	per 100 lbs.	3 50
Nos. 25-26	per 100 lbs.	3 70
No. 27	per 100 lbs.	3 90
No. 28	per 100 lbs.	4 10

POLISHED SHEET STEEL.

No. 24	per 100 lbs	$4 90
No. 26	per 100 lbs.	5 00
No. 27	per 100 lbs.	5 10
No. 28	per 100 lbs.	5 20

SMOOTH STEEL.

Wood's Smooth,	No. 20	$3 05
" "	No. 22-24	3 10
" "	No. 25-26	3 15
" "	No. 27	3 20
" "	No. 28	3 30

PATENT PLANISHED SHEET IRON.

Patent Planished Sheet Iron, "A" $10.20, "B" $9 20

PATENT PLANISHED SHEET STEEL.

Dickey Planished Sheet Steel 8½c

SOLDER.

XXX Guaranteed ½ & ½	per lb. 18 c
Commercial ½ & ½	per lb. 17½c
No. 1 Plumbers	15½c

SHEET ZINC.

500 lb. Casks	case, per cwt.	$8 70
300 lb. Casks	per cwt.	8 80
Sheets	per cwt.	9 50

COPPER.

Copper sheet, 100 lbs. over, base ... 20c

TIN PIGS AND BARS.

Banca, pigs, per lb	29 c
Straights, pigs, per lb	29 c
Straights in bars, per lb	33 c

LEAD.

American Pig	6½c
Bar	7½c
National (White) brands (in less than 100 lb lots), per lb	8½c
Sheet.	
Full coils	per 100 lbs. $9 00
Cut coils	per 100 lbs. 9 50

HARDWARE.

ADZES.

Carpenters'.
Plumbs 40%

Coopers'.
Barton's 20%
White's 15%

Railroad
Plumbs 40%

Ship.
Plumbs 40%
White's 12½%

AMMUNITION.

Caps, Percussion—per 1,000.

F. L Waterproof, 1-10s	40c
G D	35c
Musket	60c

Shells, Loaded—
Loaded with Black Powder 40%
Loaded with Smokeless Powder, medium grade ..... 40 & 5%
Loaded with Smokeless Powder, high grade ..... 40 & 10 & 10%

Union Metallic Cartridge Co.:
New Club, Black Powders 40%
Nitro Club, Smokeless Powders, ... 40 & 5%
Arrow, Smokeless Powders .... 40 & 10 & 10%

Winchester:
Smokeless Repeater Grade .. 40 & 5%
Smokeless Leader Grade. 40&10&10%
Black Powder 40%

Gun Wads—per 1,000.
Winchester Gun Wads 15%

Powder.		Each.
DuPont's Sporting,	kegs	$ 50
" "	½ kegs	2 50
" "	¼ kegs	1 40
Dupont's Sm'k'less.	50-lb. drum	22 45
" "	25-lb. kegs	11 30
" "	12½-lb. kegs.	5 80
" "	6½-lb. kegs.	2 97
"	1-lb. cans	15

Shot.

Drop shot, sizes smaller than B, 25-lb. bags, per bag	1 95
Drop shot, B and larger sizes, 25-lb. bags, per bag	2 20
Buck Shot, 25-lb. bags, per bag	2 20
Chilled Shot, 25-lb. bags, "	2 20

ANCHORS

Expansion Screw Anchors 10%

ANVILS

Trenton, 70 to 80 lbs	9½c per lb
Trenton, 81 to 150 lbs	9½c per lb

ASBESTOS.

Board and Paper 25%

AUGURS.

Boring Machine 70%
Irwin's ..... 40&10%
Carpenter's Nut 70%
Hollow.
Bonney's—list $30.00 ..... 75&5%.
Stearns, No. 3 ..... 36 00
Post Hole.
Digwell, 8-inch ..... per doz. 12 50
Iwan's Post Hole and Well .. 40%
Vaughan's, 4 to 9-in., per doz. 6 25
Rafting.
Snell's ..... 50&5%
Ship.
Ford's, with or wi'out screw. 40-12½%
Snell's " " " 40-5%

AWLS.

Brad.

No. 3 Handled	per doz.	$0 40
No. 1050 Handled	"	80
Shouldered, assorted, 1 to 4,	per gro.	$1 20
Patent asst'd, 1 to 4	"	85
Harness.		
Common	"	95
Patent	"	90
Peg.		
Shouldered	"	1 20
Patent	"	60
Scratch.		
No 1 handled	"	4 80
No. 15, socket handled	per doz.	1 25
No. 7 Stanley		1 80
Sewing.		
Common	per gro.	90
Patent	"	90

AXES.

Boy's Handled.
Lippincott, 3 lb ..... per doz. $6 00
Falls City ..... " 6 00
Broad.
Plumbs, West, Pat 33⅓%
" Can. Pat 40%
" Firemen's (handled) ..... per doz $1, 75
Plumbs, Miners' (handled) " 6 75
Single Bitted (handled)

Gladiator . 3 to 4 lbs , per doz		$11 00
Flint Edge	" " "	9 25
Standard ..	" " "	9 25
Elec Chopper, Forest Clipper		10 50
Perfect Premier	" "	10 00
Crown	" "	7 00

Single Bitted (without handles)

Gladiator ... 3 to 4 lbs.	per doz.	$8 50
Flint Edge.	" "	7 00
Standard...	" "	7 00
Electric Chopper"	"	8 25
Perfect.....	" "	7 75
Crown.....	" "	6 25

Double Bitted (without handles).

Gladiator... 3 to 4 lbs.	per doz.	11 50
Flint Edge.	" "	9 75
Perfect.....	" "	11 00

The above prices on axes of 3 to 4 lbs. are the base prices.
3½ to 4½ lbs advance 25c
4 to 5 lbs. advance 50c.
4½ to 5½ lbs. advance 75c.

BAGS, PAPER NAIL.

Pounds	10	16	20	25
Per 1,000	$2.50	3.75	4.50	5.00

BALANCES, SPRING.

Frary's 40%
Pelouze 20%

BARS, CROW.

Pinch or Wedge Point .. per cwt. $3 75

BASKETS.

Clothes.

Small Willow	per doz.	$7 00
Medium "	"	8 75
Large "	"	10 50

Galvanized Iron.	½ bu.	1 bu.	1½ bu.
Per doz	$4 75	6 50	8 00

BEATERS.

Carpet.	per doz.
No. 10 Coppered Spring Wire.	$0 90
No. 12 Spring Wire	1 10
No. 10 Preston	1 10

Egg.	Per doz.
No. 50 Imp. Dover	$0 75
No. 102 " " tinned	83
No. 150 " " hotel	1 40
No. 10 Heavy hotel tinned	2 10
No. 13 " " "	3 30
No. 15 " " "	3 60
No. 18 " " "	4 50

BELLOWS.

Blacksmiths' 65%
Hand.
8-inch ..... per doz. $8 50
10-inch ..... " 10 50
Moulders'.
12-inch ..... " 12 50

BELLS.

Call.
3-inch Nickeled Rotary Bell, Bronzed base ..... per doz. $5 00
Cow.
High Grade 60%
Kentucky ..... 65&10%
Door. Per doz
New Departure Automatic ... $6 00
Rotary.
3 -in. Old Copper Bell 4 00
3 -in. Old Copper Bell, fancy .. 6 00
3 -in. Nickeled Steel Bell 4 50
3½-in. Nickeled Steel Bell 5 00
Hand.
Hand Bells, polished ..... 40&5%
White Metal 40%
Nickel Plated 30%
Swiss ..... 40&33⅓%
Silver Chime 33⅓%
Miscellaneous.
Church and School, steel alloy .. 50%

Farm, lbs	40	50	75	100
Each	$1.25	1.60	2.35	2.85

BEVELS, TEE

Stanley's, rosewood handle, new list 25%
Stanley's iron handle 25%

BINDING, OILCLOTH.

Zinc 80%
Brass ..... 70&10%
Brass plated ..... 75&5%

BITS.

Auger.
Extra Double Spur ..... 70&10%
Ford's Car and Machine .... 40&10%
Triumph ..... 50&5%
Ford's Ship ..... 40&10%
Irwin 50%
Russell Jenning's ..... 25&10%
Clark's Expansive 50%
Steer's " Small list, $22.00 .. 25%
" " Large " $26.00 .. 25%
Irwin Car 45%
Ford's Ship Auger pattern Car ..... 40&10%
Center ..... 40&10%
Countersink.

No. 18 Wheeler's	per doz.	$1 25
No. 20 "	"	1 75
American Snail head	"	75
" Rose "	"	90
" Flat	"	75
Mayhew's Flat	"	1 25
" Snail	"	1 25

Dowell.
New Jennings ..... 40&10%
Gimlet.

Standard Double Cut		60%
German Pattern	per doz.	$0 60
German	"	65
Gouge	"	80
Spoon	"	80
Countersink	"	1 00
Reamer.		
Jenning's Square	"	2 50
Standard Square	"	75
German Octagon	"	75
Screw Driver.		
No. 7 Commoc	"	50
No. 1 Triumph	"	1 25
No. 2	"	1 —
No. 340 Shepardson's	"	— —
No. 1 Smith's	"	— —

BLACKING, STOVE. (See Polish).

BLADES, SAW.

Butchers'.
Standard, ¾ & 1¼-in.....40%
Clock Spring.....40%
Star.....15%
Coil.....each, $1 50

Hack.
Disston's.....25&5%
Flexible.....33⅓&5%
Star.....20&5%

Wood.
Jackson's.....per doz. $2 25
Disston's—No. 6, 16, 26 & 045.. 4 25
Triumph..... 3 50
Forest Clipper..... 3 00

BLOCKS.

Snatch.
Wooden.....60&10%
Steel.....50%

Tackle.
Iron Strapped.....70%
Com. Steel.....60%

BOARDS.

Stove.....40%

Wash.
Globe, single.....per doz. $3 15
Globe, double..... " 3 65
Magnolia..... " 3 55
Crystal Glass..... " 4 35
Brass King..... " 4 50
Nickel Plate..... " 4 15
Enamel King..... " 4 35

BOBS, PLUMB.

Carpenters'.
No. 2, iron.....per doz. $0 65
No. 00, " ..... " 1 30
No. 0, " ..... " 1 80
No. 3, lead..... " 2 90
No. 4, " ..... " 3 40
No. 113, brass plated.. " 1 10
No. N30, nickel plat'd. " 1 30
No. N31, " " " 1 85

BOLTS.

Carriage, Machine, etc.
Carriage, ⅜x6 and sizes smaller and shorter.....70%
Carriage, sizes larger and longer than ⅜x6.....50-10&5%
Machine, ⅜x4 add sizes smaller and shorter.....70%
Machine, sizes larger and longer than ⅜x⅜x4.....60%
Elevator.....50-10&5%
Plow.....60&10%
Stove.....80%
Tire.....75%
Wagon Box Strap.....70%

Mortis, Door.
Gem, iron.....60%
Gem, bronze plated.....20%

Barrel.
Cast.....60%
Wrought.....
Wrought, bronzed.....50%

Flush.
Wrought.....50&10%

Spring.
Wrought.....
Wrought, heavy.....

Square.
Cast.....50&10%
Wrought.....

BORERS.

Angular.
Miller's Falls.....per doz. $13 00

Bung.
Doz.
Enterprise Mfg. Co.'s No 1... $14 00
" " " No 2.. 18 50

BOXES

Mail, No..... 1 2 10
Per doz.....$3.50 5.50 17.50

Miter.
New Langdon.....15&5%
Stanley's.....30%
Seavey's.....each, $1 50

BRACES.

Barber's ..... 50&10&10@50&10&15%
Fray's Genuine Spofford's.....60%
" Nos. 66 to 146.....50%
" No. 0108..... $3 50
" No. 08..... 2 75
" No. 010..... 2 85

BRACKETS.

Hay-Rack.
Wenzelmann's No. 1, per doz. $9 00
" No. 2, " 9 60

Shelf.
Cast Iron, bronzed.....50-10&5%
Griffin Wrought Steel.....70&10%
Griffin Folding.....70%

BROILERS.

Wire.....70%
No. Cwron, Self-basting, 80dos .. $2 50

BUCKETS.

Pump, Rubber.
Wychoff.....per gro. $4 75
Cooper..... " 4 75
Champion..... " 7 50
Victor..... " 9 25
Star..... " 5 00
IXL..... " 6 75

Well.
Galv'd Qts..... 10 12 14
Per doz.....$2.90 $3.25 $3.40
Wooden, top ear, plain, per doz. 4 00
" " swivel, " 5 10

BUCKS, SAW.

Folding.....per doz. $2 10

BURRS, RIVETING.

Copper Burrs only.....20%
Tinners' Iron Burrs only.....65&5%

BUTTS.

Cast Iron.....70&5%.
Wrought Brass (New List).....20%
Wrought Steel, Bright.
Wrought Steel, Japanned.
Nos. 731 and - 70%

CALIPERS.

Double.....65&5%
Inside and Outside.....65&5%
Wing.....70%

CALKS.

Logger's Boot.
(Lufkin R. Co.'s), per M..... $3 75

Toe.
Shoenberger.....per lb 5 c
Bessemer..... " 4½c
American..... " 7 c
Swedes..... " 8½c

CANS.

Cheese Factory.
Ontario Pattern.
Gallons..... 20 30 40
Each..... $4.25 $5.00 $6.25

Milk.
Holstein.
Nos..... 300 301 302
Gals..... 6 8 10
Per doz.....$26.00 $27.00 $29.00
Chicago Pattern.
Nos..... 105 108 110
Per doz.....$20.00 $22.50 $24.00
Iowa Pattern.
Nos..... 408 410
Per doz..... $24.50 $25.50
New Elgin Pattern.
Nos 705 708 710
Per doz.....$27.00 $29.00 $30.50
Burn Pattern
Nos..... 700 701
Gals..... 8 10
Price..... $2.40 $2.65

CAN OPENERS.

See Openers.

CAPS, GUN.

See Ammunition.

CARPET STRETCHERS.

See Stretchers.

CARRIERS.

Hay.
Diamond, Regular.....each, $3 85
Diamond, Sling..... " 6 50
Myers' Imperial ..... " 3 85
Myers' Clover Leaf..... " 4 00

CARTRIDGES.

See Ammunition.

CASTERS.

Standard—Ball Bearing.....50&10%
Bed.....60&5%
Common Plate.
Brass Wheel.....60&10%
Iron and porcelain wheels, new list.....60&5%
Philadelphia Plate, new list.....70%
Martin's.....60%
Payson's.....75&10%

CATCHERS, GRASS.

Carroll's, No. C.....per doz. $4 25
Wildermuth's,.
Nos..... 1 2 3
Per doz.....$5.00 $5.75 $6.25
Nos..... 4 5 6
Per doz.....$6.75 $9.50 $10.00

CHAIN AND CHAINS.

Breast Chains.
Doubleslack.....doz. pairs, $5 75
With Covert Snaps. " 5 00
With Slide..... " 3 25
Without Slide..... " 2 85

Bright Ox Chains.
½-in. $7.25; ⅝-in. $5.45 per 100 lbs.

Cable Coil Chain.
Inch..... 5/16 ⅜ 7/16 ½
Per 100 lbs.$10.80 $8.00 $7.00 $6.20
Inch..... 9/16 ⅝ ¾ ⅞
Per 100 lbs.$6.00 $5.90 $5.75 $5.65
Inch..... ⅞ 1 1¼
Per 100 lbs.....$5.55 $5.55 $5.65

Cable Log Chain.
Advance 25c per 100 lb. on Cable Coil.

Cow Tie Chains.
American, 2 toggle.....50&5%
" toggle and snap...50&5%
" open and closed ring.....50&5%

Halter Chains.
American, new list.....33⅓%
German.....50&10&5%
Niagara, new list 40%
Brown's, " 40%

Picture Chains.
Light Brass, 3 ft.....per doz. $0 65
Heavy Brass, 3 ft .... " 1 00

Pump Chain
Galvanized, per 100 lbs.....$5 50

Safety Chain.
Brass.....50%

Special Steel Loading Chain.
Inch..... ⅝ 7/16 ½
Per 100 lbs.....$16.00 $13.50 $12.50

Stretcher Chains
5/16-in. $8.50; ⅜-in. $7.75 per 100 lbs.

Tie-Out Chains.
Brown's.....70&5%

Trace Chains.
Western Standard.
6½— 6-2.....per pair 30c
6½— 8-2..... " 34c
6½— 8-3..... " 33c
6½—10-2..... " 38c
7 — 8-2..... " 38c
7 —10-2..... " 42c
7 —10-1..... " 48c
7 —10-0..... " 60c
Add 2c per pair for Hooks.
Add 2c " for Twist Link.

Wagon Stay Chains.
Inch..... ⅝ 7/16 ½
Per 100 lbs.....$6.50 $6.00 $5.50

CHALK, CARPENTERS'.

Blue.....per gro. 75c
Red..... " 65c
White..... " 55c
Common White School Crayon..... " 8c

CHARCOAL.

In bags.....per bag 90c

CHECKS, DOOR.

Blount.....33⅓%
Sargent's.....33⅓%

CHIMNEY TOPS.

Iwan's Volcano.....50%

CHISELS.

Box.
Inches..... 10 12 14
Round per doz....$2.10 $2.25 $2.75
Flat " ... 2.85 3.60 4.20

Cold.
Good quality, ⅝ in. and larger.....per lb. .12c
Smaller size per doz.....

Socket, Framing and Firmer.
Barton's.....20%

Tanged, Firmer.
With handles.....30&5%

Choppers, See *Cutters, Meat.*

CHUCKS, DRILL.

Goodell's, for Goodell's Screw Drivers.....per doz. $6 25
Yankee, for Yankee Screw Drivers..... 5 00

CHURNS.

Anti-Bent Wood,
Gal..... 5 7 10
Each.....$3.90 $4.60 $4.85
Belle, Barrel.....65&7½%
Common Dash, Gal. 4 5 6
Per doz..... $7.75 $8.50 $10.50
Union, Gal..... 5 7 10
Each.....$3.65 $3.90 $4.75

CLAMPS.

Adjustable.
Martin's.....30%

Carpenters'.
Steel Bar.....25%

Hose.
Sherman's, brass, ½-in., per doz.. 42c
Double, brass, ¾-in., " 90c

Saw Filers.
Disston's list, $30.00.....30%
Stearns', No. 0, $3.50; No. 1, $11.50; No. 3, $5.00 doz.
Wentworth's, No. 1, $6.00; No. 3 $7.50.

CLAWS, TACK.

Cast, wood hdle.....per doz.45@60c
Forged steel, wood hdle " $0.80
Solid steel..... " 1 00
Giant..... " 00

CLEANERS.

Drain.
Iwan's Adjustable.....55%
Iwan's Stationary.....40&5%

Pot.
Wire.....per doz. $0 55

Side-Walk.
Steel.....per doz. $3 25
XLCR .....65&5%

CLEAVERS

Family.
Griffin, Inch..... 6 7 8
Per doz.....$5.50 $5.75 $6.25
Royal.....per doz. 2 25

Butchers.
Beattys, Kitchen.....40%

CLEVISES

Malleable .....5½c lb.

CLIPPERS.

Bolt.....$1.90@4.75

CLIPS.

Axle.....65&5%

Damper.
Standard.....per doz. 65c
Troy..... " 38c

Hame..... " 17

CLOTH.

Emery.
Star.....50%
B. & A.....50%

Hardware Wire—full rolls (100 ft.)
2 to 8 mesh, black, per 100 sq. ft..... $2 50
9 to 12 mesh, black, per 100 sq. ft..... 2 50
2 to 3 incl., Galv.—in full roll... 4 50
4 and 5..... " .. 4 75
6..... " .. 5 00
7 and 8..... " .. 5 50

Screen Wire.
12 mesh, painted, per 100 sq. ft.. 1 25

COCKS AND FAUCETS.

Compression Plain Bibbs.....60%
Lever Bibb Cocks.....60%
Compression Hose Bibbs ..50—10&5%
Telegraph Faucets (new list)..50—5%
Racking Cocks (new list).....60%
Compression Lock C'ks (new list).70%
Andrew's Brass Faucets.....70%
Angle Plug Faucets, per doz....$0 85
Milk Can Faucets, per doz..$2.60-4.20
Petroleum Faucets.....75%

COLLARS, STOVE PIPE.

Inches..... 5 6 7
Plain Tin..per gro.$1.90 $2.40 $3.50
Japanned Tin " 3.00 3.00 4.25
Lacquered Brass" 3.00 5.50 4.25

COMBS, CURRY.

Nos... 000 11 15 39 89 108
Per Doz..$.37 .60 1.90 .90 1.15 .80
Nos... 299 320 300 532 620 1400
Per Doz.$1.05 .85 1.25 1.20 .75 1.40

COMPASSES.

Carpenters'.....60—10—10%
Pencil—Faber's.....per doz. $1.00

COPPER—See Metals.

COPPERS.

Soldering.
1 lb.....per lb 32c
1½ lb.....33c 2 lb... " 31c
3 lb and larger..... " 28c

CORD.

Picture
White Wire (new list).....85&5%

Sash.
Baltic Braided Flax.....per lb
Silver Lake. white. 7-32 in. "
Silver Lake, white, 8-32 in. "
Keystone.....8-32 in. " 29c

CORKSCREWS.

Humason & Beckley.....33⅓%
Walker's.....33⅓%
Williamson's Regular.....40&10%
Williamson's Forged Worm.....50%

COTTERS, SPRING.

All sizes—new list.....90&20%

COUPLINGS, HOSE.

Brass.....per doz. $
Brass Plated..... " 85

COVERS, WAGON—See Tents.

CRADLES, GRAIN.

Morgan's Grapevine....per doz.$22 75

CRAYONS—See Chalk.

CROW BARS.

inch or Wedge Point.....per lb 3½c

CUTTERS.

Glass.
Red Devil.....45%
Smith & Hemenway Co.....50%
Woodward.....40%
Meat.
Enterprise, Nos. 5, 10, 12, 22, 32 and 42.....25%
No. 202, list, $1.50 ea.....40&7½%
Pipe.
Stanwoods. No.... 1 2 3
Each.....$0.85 $1.50 $4.00
Slaw and Crout.
3-knife Crout.....per doz. $9 75
1-knife Slaw..... " 1 65
2-knife Slaw..... " 2 25
Washer..... " 7 75

DAMPERS, STOVE PIPE.

Standard.....50%
American.....45%
American.....45%

DIES AND STOCKS.

Discount.....40%
King's, Little Giant.....33⅓%

DIGGERS.

Post Hole.
Acme.....per doz. $9 25
Atlas..... " 9 00
Eureka..... " 7 50
Hercules..... " 10 25
Iwan's Split Handle.. " 7 50
Iwan's Perfection.... " 9 00
Iwan's Hercules pattern " 10 00
Ryan's..... " 17 00
See also Augers—Post Hole.
Dividers, Wing.....65&10%

DOOR CHECKS—See Door.

DOORS, SCREEN.

⅞ in. 4-panel, painted...per doz. $7 93
1⅛ in. 4-panel, painted... " 9 50
1⅛ in. 3-panel, natural pine, fancy..... " 12 40

DOOR HANGERS—See Hangers.

DRILLS.

Bit Stock.....60&10%
Blacksmith's Twist.....60%
Breast.
Common.....each, $2 25
Millers Falls..... " 2 10
Hand.
Goodell's Automatic.
Nos..... 01 03 3 20
Per doz.. $7.75 $12 50 $12.50 $11.00
Goodell's Single Gear. per doz. 15 75
Millers' Falls " " " 12 75
" " Double " " 15 25
Reciprocating.
Goodell's.....per doz. 16 50
Bit Stock.
Standard List..60&5%@60%@10

DRIVERS, SCREW.

Standard.....65&10%
Lock Ferrule.....60%
Champion.....40&10%
Champion Pattern.....70%
Clark's Interchangeable.....30%
Edison.....60%
Reed's Lightning.....45&5%
Goodell's Spiral.....50, 10, 5&2½%
Yankee Ratchet 50%
" " Spiral.....50&10%
Smith & Hemenway Co.....40&5%

EAVES TROUGH, GALVANIZED.

Territory. L. C. L.
Eastern.....75&5%
Central.....75&10%
Southern.....75%
Western.....75%
S. Western.....70&10%
Terms, 2% for cash. Factory shipments generally delivered.
See also conductor pipe and elbows.

EGG BEATERS—See Beaters.

ELBOWS.

Adjustable Stove.
Inches..... 5 6 7
Smooth, per doz...$0.75 $0.85 $1.20
Plan'd, " 1.80 2.00 2.65
Corrugated Conductor.
Discount.....75&10%
Corrugated Stove.
Inches..... 5 6 7
Smooth, per doz..$0.85 $1.00 $1.50
Pol'd, " .. 1.40 1.65 2.25
Plan'd, " .. 2.15 2.65 3.40
Four-Piece Stove.
Inches..... 5 6 7
Smooth, per doz..$0.60 $0.65 $0.95
Planished, " .. 1.40 1.70 2.30

EMERY CLOTH—See Cloth.

EMERY TURKISH.

Size .....5-lb. pkgs. ½ kegs, kegs
No 60 to 150, per lb.. 4c 4c 4c
Flour..... " ... 5c 3c 3c

ENAMEL, IRON.

Nubian, ½-pt. cans.....per doz. 1 65
Peerless..... 1 25

EXTRACTORS, PIG.

See Porceps, Pig.

EYES.

Bright Wire Screw—See Goods, B. W.
Drifting Pick.....60, 10&5%
Hooks and—
Brass.....50&10%
Iron.....70%

FASTENERS, STORM SASH.

Schroeder's.....per doz. $0.85
Sensible..... " 1 15

FAUCETS—See Cocks.

FILES AND RASPS.

Delta.....70%
Kearney & Foot.....75&10%

FLUE STOPPERS—See Stoppers.

FORCEPS, PIG.

Superior.....per doz. $4 75
Whisson's Imp..... " 5 25

FORKS.

These goods are sold net this year.
Barley.
Steel New List.....65&10%
Wood, 4-tines, per doz.....$5 00
Coal, Coke, Cottonseed.....30%
Hay.
2-tine.....60%
3 " .....60&5%
4 " .....60&10%
Digging.....65&5%
Scoop.....30%
Header.
3-tine.....60&5%
4 " .....60&5%
Manure.
4-tine 60%
Ore.....40%
Spading.

FRAMES.

Hack Saw.
Union.....per doz. $5 75
Jenning's adj..... " 7 50
Cast..... " 2 50

FREEZERS, ICE CREAM.

Arctic.
Qts..... 1 2 3 4 6
Each...$1.10 1.30 1.50 1.80 2.30
Qts..... 8 10 12 15
Each.....$2.95 3.80 4.50 5.20
White Mountain.
20 qt., New Platform....each, $19 10
25 qt., " " " 22 60
25 qt., Sampson Power, " 43 50
40 qt., " " " 58 25

GAUGES.

Butt and Rabbet.
Cream Pail.
Fairmont.....per doz. $3 75
Marking, Mortise, etc.....
.....50&10%
Saw.
Wire.
Disston's.....25%

GIMLETS.

Discount.....35@40%

GLASS, WINDOW.

Single.....90%
Double.....90&10%

GLASSES, LEVEL.

GLUE.

Bulk.
B Amber.....per lb. 12 c
A White..... " 15 c
H. S. Amber..... " 16½c
Liquid.
Army & Navy.....40%
Le Page's—
List "A".....37½%
List "B".....33⅓%
List "C".....25%

GOODS.

Bright Wire.....85&15%

GREASE, AXLE.

Wood Boxes.
Diamond.....per gro. $5 50
Frazer's..... 9 50
Hub Lightning..... 5 25
Paragon..... 6 75
Wood Pails.
Frazer's, 15 lb. 80c; 25 lb. $1.30 each.
Hub Lightning, 15 lb. 55c; 25 lb. 70c each.
Tin Cans.
Chamellene Graphite.
1 lb. per gross.....$9 50
3 lb. per gross.....25 00
5 lb. per gross.....37 00

GRIDDLES.

Soapstone.....33⅓%

GRINDSTONES.

Family.
Inches..... 7 8 9
Per doz.....$8.25 9.00 10.50
Loose.
Per ton.....$20 00@$21 00
Mounted.
Ball Bearing..... 1 2 3
Each.....$3.15 3.00 2.85
Common Bearing 1 2 3
Each.....$3.00 2.80 2.65

GUN WADS
(See Ammunition.)

HAFTS, AWL.

Brad.
Common.....per doz. $0 19
Peg.
Common..... " 22
Patent, plain top..... " 47
Patent, leather top... " 52
Sewing.
Common..... " 22
Patent..... " 52

HALTERS.

Jute Rope.....per doz. $1 10
Sisal Rope..... " 1 85
Web..... " 2 00
Leather, rope tie..... " 8 50
Leather, leather tie..... " 11 50

HAMMERS, HANDLED.

Blacksmiths' Hand.
Plumbs.....60&5%
Engineers'.
Plumbs.....60&5%
Farriers'.
Plumbs.....40&10%
Machinists'.
Plumbs.....60&5%
Nail.
Plumbs.....40&7½%
Quaker City.....per doz. $3 50
Cast..... " 1 15
Maydole's.....30&5%
Riveting.
Plumbs.....40&12½%
Shoe.
Cast.....per doz. $0 75
Tack.
All Iron.....per doz. $0 35
Pol'd Iron, Hickory hdl. " 50
Mall. Iron, Inlaid..... " 1 55
Magnetic..... 1 2 3
Per doz.....$0.70 .80 1.00
Magazine.. .....per doz. 4 75

HAMMERS, HEAVY.

Heavy Hammers and Sledges.
Under 5 lbs.. .....75&5%
5 lbs. and over.....75-10&5%
Masons'.
Single and Double Face.....75&5%

HANDLES.

Auger.
Common Assorted....per doz. $0 38
Peck's Adjustable.... " 2 10
Ives' Adjustable.....per set, 1 35
Axe.....60%
Chisel.
Hickory, Tanged Firmer, Assorted, 33c; Large, 38c per doz.
Hickory, Socket Firmer, Assorted, 27c; Large, 30c per doz.
Applewood, Tanged, Firmer, Assorted, 29c; Large, 38c per doz.
Applewood, Socket, Firmer, Assorted.....per doz $0 24
Coal Pick.....50&10%
Drift ng Pick.....50&10%
File, assorted, 13c; Large, 16c per doz.
Hammer.
Adze Eye.....per doz. $0 40
Blacksmiths'..... " 40c@70c
Machinists'..... " 45c@70c
Hatchet..... " 40
Hay and Manure Fork.....30%
Hoe and Rake.....30%
Plain.....per doz. $0 75
Varnished..... " 80
Screw Driver.
Assorted..... " 37
Large..... " 48
Shovel and Spade.....33⅓%

HANGERS.

Barn Door.
Nansen.....60&10%
Matchless.....70&10%
Storm King.....60%
World's Best.....50%
Wagner's Adjustable.....70&10%
Warehouse.....60%
Conductor P.
Griffin.....70&10%
Iwan's Perfection.....50%
Eaves Trough.
Baker's.....per gro. $2 35
Imperial.....20%
Wire.....33⅓%
Parlor Door.
Acme.....per set, $3 75
Ives' Improved..... " 2 50
Lane's Standard..... " 3 50
Lane's New Model.... " 3 10
Le Roy Noiseless..... " 4 00
Richards'.....40-10&5%

HASPS.

Hinge, Wrought.....40%
With Staples—See Staples.

HATCHETS.

Crown.....50-10&5%
Cast Claw.....per doz. $1 20@1 45
Cast Shingling.... " $0 95@1 20
Germantown.....40%
Plumbs.....33⅓&5%

HAY KNIVES.

See Knives.

HAY RACK BRACKETS.

Wenzleman's No. 1.....per doz. $9 00
Wenzleman's No. 2..... " 9 00

HINGES.

Blind.
Clark's Gravity ... per doz. sets, 95c
Parker's.....65%
Shepherd's Noiseless, for Wood Casing.....per doz $1 00
Gate.
Clark's..... 1 2 3
Hgs & Ltch.. doz. $2.50 2.90 4.00
Hinges only... " 1.90 2.20
Latches only . " .70 .75
Knuckle.....per doz prs. $6 00
Leed's..... " sets 6 75
Superior..... " prs. 9 50
Spring.
American.....20%
Chicago.....25&5%
Columbia Dbl. Acting....40&10&5%
Gem.....25%
Ideal Detachable.....per gro. $11
Matchless.....30%
New Idea.....per gro. $8 00
Oxford.....20%
Wrought Iron
New Lists .....
Griffin
Light Strap Hinges.....60%
Heavy Strap Hinges.....65%
Light T Hinges.....55%
Heavy T Hinges.....45%
Extra Heavy T Hinges.....60%
Screw Hook and Strap.
6 to 12 in.....per 100 lbs. $3 75
14 to 20 in..... " " 3 65
22 to 36 in..... " " 3 40
Screw Hook and Eye.
⅞ in.....per 100 lbs. $6 75
⅝ in..... " " 7 75
½ in..... " " 9 75

HOES.

Garden .....70&10%
Grub.
Extra.....70%
Hazel.....per doz. $5 00
Ladies' and Boys'.....75%
Mortar.....75&10%
Planter's Eye.....62½%
Weed.....75&15%

HOLLOW WARE—See Ware.

HOOKS.

And Eyes.
Brass.....50&10%
Iron.....65&10%
Awning.....per gro. $1 00
Belt.
Brown's.....70&5%
Jones'.....65&5%
Bench.
See Stops, Bench.

Box.
Inch..... 6 8 10 12
Per doz.....$1.35 1.65 1.75 2.30
Humason & Beckley's..per doz. $2 50
(See Goods, Bright Wire.)
Bush.
Common Axe Handle. per doz. $7 00
Chain.
Inch..... ¼&5/16 ⅜ 7/16 ½
Per 100...$7.60-8.10 9.75 11.50 12.60
Clothes Lines.
Japanned .....per doz 22c@24c
Galvanized..... " 40c
Coat and Hat
Cast Iron .... per gro. 72c@$1 50
Gem Wire.....70%
Conductor.
Malleable .... 50&10% @50&10&5%
Wrought ... . 40&10% @50%
Corn.
Common, unpolished, per doz. $1 35
Common, polished.... " 1 80
"Cut Easy"..... " 2 75
Gate.
See Goods, Bright Wire.
Grass.
Common. Nos..... 2 3 1
Per doz.....$1.50 1.60 1.70
German.....per doz. 1 75
Little Giant..... " 2 75
Hammock.
With plate.....per doz. 50
With screw..... " 45
Lambrequin, or Drapery, per gro. .21c
Picture.....50% @50&10%
Potato and Manure.....70&12½%
Screw.
Brass.....80&5%
(See Goods, Bright Wire.)
Seat Spring .....per lb. 5½c

HOOPS, TUB.

Elastic ... per case of 2 doz.... $1 50

HOSE, GARDEN.

				Coupled, per ft.
Heron, 3 ply-½" guar. press			55 lbs.	7½c
Crane..	"	"	75 "	8½c
Falcon	"	"	95 "	9½c
Eagle	"	"	120 "	10½c
Condor	"	"	150 "	11½c
High Test	"	"	200 "	12½c

COTTON COV. RUBBER HOSE.

High Grade-½"-guar. press.			400 lbs.	11½
Special	"	"	300 "	9½c
Leader	"	"	100 "	7½c

HUSKERS.

Boss.
Nos..... B BB E 200
Per doz.....$2.00 2.00 1.75 .80
Nos..... L PP P K
Per gro.....$5.40 6.00 6.00 10.50
Nos..... 2000 3000 O
Per gro.....$3.50 9.00 24.50
Nos..... 60 59 64 68
Per doz.....$2.15 2.15 .85 1.45
Brinkerhoff's.
Per gro.....$14 40
Clark's.
No..... 1 63 200 400
Per doz.....$0.40 .75 .75 1.75
Nos..... 200s 40s 3s 4s
Per doz..... $0.85 .50 1.25 1.25
Nos..... A AB F
Per doz.....$3.00 $4.25 $2.50

IRON.

See Metals.—First column.

IRONS.

Curling.
X.....per doz. $0 40
Y..... " 50
Z..... " 58
Jewel..... " 85
Imperial..... " 1 00
Pinking..... " 70
Plane.
Wood Bench.....20&5%
Sad.
Charcoal.....per doz.$11 00
Common, polished, per 100 lb. 4 50
Common, nickel plated, 5 25
Chinese Polishing.....per doz. 7 40
Laundry, No. 1..... " 5 75
Laundry, No. 2..... " 6 25
Mrs. Pott's,
No. 50 J, Enterprise, per set 93
No. 55 J, " " 90
No. 50 T, " " 1 00
No. 55 T, " " 96
No. 50, Bless & Drake " 93
No. 55, " " 99
Tailors' Sad.....per lb. 5½
Tailors' Geese..... " 5½
Tuyere.
Single Duck Nest.....per doz $5 25
Double Duck Nest . . " . . 6 25
Sutton.....each.... 2 60

JACKS.

Locomotive.....70%
Wagon.
Oliver,
Nos..... 0 00
Each.....$0.60 $0.80
Standard.
Nos..... 1 2
Each.....$0.60 1.00
Wilcox.
Nos..... 1 2 3
Each..... $0.85 1.20 2.90

KETTLES.

Brass.....15%
Cauldron.....40&5%
Copper..... per lb., 27c
Maslin.....65%
Sugar.....50%

KNIVES.

Beet Topping.
Clyde, 9-in. Scimiter Blade, doz.$3 85
California..... 3 40
Cooper's Hoop.....15%
Corn.
Clipper.....per doz. $1 75
Disston's..... " 2 75
Earle's..... " 3 00
Woodford..... " 2 25
Drawing.
Standard.....70%
Adjustable.....15%
Barton's Carpenters' 10%
Folding Handle.....25&5%
Hay.
American, Sickle Edge...doz. $10 50
Canton, Sickle Edge..... " 8 25
Heath's..... " 8 00
Iwan's, Sickle Edge..... " 9 50
Iwan's, Impv'd Serrated . " 10 00
Lightn'g, Holt's Genuine.. " 6 50
Lightning Pattern..... " 6 00
Wadsworth's Sp'r Point.. " 8 50
Hedge.
Challenge.....per doz. $6 00
Disston's..... " 3 75
Mincing.
Common, Single..... " 40
Common, Double..... " 50
Streeter, 4-Blade..... " 1 30
Streeter, 6-Blade..... " 2 00
Putty.
Common.....per doz. $0 60@1 00
Lander'r..... " 1 40@1 75
Scraping.
Beech Handle..... 75@1 00
Lander's..... 5 25@6 00

KNOBS.

Door.
Mineral.....per doz. $0 80
Porcelain..... " 90
Jet..... " 90

LADDERS.

Common Long.
Per ft.....9c@14c
Extension.
Per ft.....14c
Step.
Common, per ft.....7½c
Common, with Shelf, add 10c.
Keystone.....15c
Triumph, per ft.....20c

LANTERNS.

Bull's Eye Police.
3 -in. Flash Light....per doz. $6 00
2¾-in. Regular..... " 4 90
3 -in. Regular..... " 5 50
Tubular.
Buhl . . . . . .net prices.

LEADERS, CATTLE.

Nos..... 1 2 3
Per doz..... $0 55 .70 2.75

LEATHER, LACE.

Cut.....33⅓%
Sides.
Ex. Quality ..... per sq. ft., 27

LEATHERS, PUMP.

Valve and Plunger.....10%

LIFTERS.

Stove Cover.
Coppered.....per gro. 1 75@3 65
Ideal..... " 5 50
Alaska, Coppered " 4 00
Alaska, Nickeled. " 5 00
Transom.
Payson's.....80%

LINES.

Chalk.
Twisted in 20-ft. hanks.
Nos.... 4 6 7 8 9
Gross...$1.50 2 00 2 25 2 50 3 00
Twisted in 50-ft. balls.
Nos..... 1 2 3 4
Per doz.....25c 30c 35c 41c
Braided in 20-ft. hanks.
Nos..... 0 1 2 3
Per doz.....22c 25c 31c 35c
Mansons', in 100-ft. hanks...doz. 80c
Clothes.
60-ft. Jute.....per doz. $0 95
72-ft. Jute..... " 1 15
60-ft. Sisal..... " 1 40
72-ft. Sisal..... " 2 15
50-ft. Cotton..... " 1 15
50-ft. Braided Cotton. " 25

LINING, STOVE.

In Bricks .....per crate, 42c

MACHINES.

Boring.	Without Augers	With Augers
Angular.....per doz.	3 00	4 40
Upright..... "	2 60	4 00
Leather Riveting.		
Chicago, Pomeroy....per doz.		$0 00
Excelsior..... "		2 00
Handy..... "		2 00
Little Giant..... "		3 00
Pony, Pomeroy..... "		7 20
Washing.		
Winner.....per doz.		54 00
Keystone..... "		54 00
U. S. Steel..... "		60 00
Advance, f.o.b. Chicago "		24 50

MAIL BOXES.

See Boxes.

MALLETS.

Carpenters'.
Fibre Head, Small....per doz. $5 00
" " Medium. " 5 75
" " Large... " 7 00
Round Hickory..... " 2 25
" Lignumvitæ... " 4 00
Square Hickory..... " 2 25
" Lignumvitæ... " 4 50
Tinners'.
Applewood..... " 1 70
Hickory..... " 1.00@1 50
Hickory Sheet Iron... " 1 50

MATS

Door
National Rigid.....50, 10&5%
Acme Steel Flexible.....33⅓%
Stove.
No. 2.....per gro. $3 25
No. 1..... " 3 50
No. 1 Asbestos Toasters, or wire-covered Stove Mats, with handle.....per doz. 1 10
No. 2 Asbestos Toasters, with ring.....per doz. 60

MATTOCKS.

Plumbs.....65&10%
Extra.....60%

MAULS.

Iron, lbs..... 10 12 16 18
Per doz.... $4.00 4.50 5.25 5.60
Wood face, lbs..... 10 12 14
Per doz..... $5.00 5.50 6.00
Wood Choppers'.
Lake Super'r & Oregon Pat. 75&10%

MEASURES.

	¼ pk.	1 pk.	bu.
Galvanized, per doz.	$2.25	3.00	3.85
Japanned.. "	1.75	2.45	3.15

MICA.

First Quality.....20%
Second Quality.....25%

MILLS, COFFEE.

Enterprise.....25%
Parker.....40-12½&2½%
Arcade.....40-12½&2½%

MITRE BOXES.

See Boxes.

MOPS.

Erie.....per doz. $3 15
Handled Cotton.
Pounds..... ¾ 1 1¼ 2
Per dozen....$2.00 2.35 2.65 3.25

MOWERS, LAWN.

Ball-Bearing.
Inches..... 14 16 18 20
Each.....$6.25 6.75 7.25 8.00
Cheap Grades.
Inches..... 12 14 16 18
Each.....$2.35 2.45 2.55 2.70
Clipper.....50, 10&10%
Yale.
Inches..... 14 16 18 20
Each.....$3.50 3.75 4.00 4.35
Philadelphia.
All Styles, except A & E, 60, 10&10%
Style A.....50&10%
Style E, High Wheel....60, 10&10%
Drexels.....40%
All Day .....Net Price

NAILS.

Cut Steel .....rates, $2 50
Cut Iron..... 2 60
Wire.
Small Lots..... $2 40
Carload Lots..... 2 35
Cement Coated..... 2 30
Horse Shoe.
Ausable.....55&5%
Capewell.....15%
Perfect.....55&5%
Putnam.....20&5%
Star.....35&5%
Clover Leaf .....per lb., net, 10½c
Picture.
Brass Heads.....25%
Brads.....85%
Furniture.....15%

NAIL PULLERS.

See Pullers.

NAIL SETS.

See Sets.

NETTING, POULTRY.

Galvanized beforeweaving..80, 10@5%
Galvanized after weaving.....80@5%
Cut Pieces.....65&5%

NIPPERS.

End Cutting.
Stubb's Pattern. Inches 5½ 6
Per dozen..... $4.00 4.25
End and Diagonal Cutting.
Swedish Side.....75%
Utica Drop Forge & Tool Co....60%
Hoof.
Heller's.....40&10%
V. & B.....55&5%

NOZZLES.

Hose.
Genuine Gem.....per doz. $3 90
Magic..... " 3 50
Mystic..... " 3 60

NUTS, HOT PRESSED.

Square Blank.
In ¼ 5/16 ⅜ 7/16 ½ ⅝ ¾ ⅞ 1
lb 9½c 8c 6½c 5½c 5½c 5c 4½c
Square Tapped.
In. ¼ 5/16 ⅜ 7/16 ½ ⅝ ¾ ⅞ 1
lb. 12½c 10½c 8c 7½c 6½c 6½c 6c
For 5-lb. boxes add ½c per lb. to above prices.

OILERS.

Chase Pattern.
Brass and Copper.....60%
Zinc.....60%
Engineers'.
Cannon.....55%
Tin .....per doz. $2 00@$2 25
Machine.
Common.....per doz. $0 58
Copper Plated Steel... " 1 00
Malleable Iron.....60, 10&5%
Japanned.....65@75%

OPENERS

Box.
Inches..... 10 12 14
Flat.....per doz. $2.85 3.60 4.15
Round.... " 2.10 2 25 2.75
Can.
Delmonico .....per doz $1 30
Never Slip..... " 65
Crate.
V. & B..... " 5 75

OUTFITS, COBBLING.

Combination.....per doz. 11 00
Economy..... " 4 65
Family..... " 9 75

PADLOCKS.

Standard Wrought.....75&5%
Champion.....50%
Eureka.....40, 10&5%
Yale.....60&5%

PAILS.

Cream.
14-qt , without gauge, per doz. $2 50
20-qt., " " " 3 00
20-qt., with gauge.... " 3 50
Sap.
10-qt., Galvanized, per 100....$13 00
12-qt., " " 14 50
14-qt., " " 16 25
16-qt., " " 17 75
10-qt., IC Tin..... " 10 25
12-qt., " .... " 11 75
14-qt., " .... " 13 00
10-qt., IX Tin.... " 12 75
12-qt., " .... " 16 00
14-qt., " .... " 17 00
Stock.
Galv'd, qts. 14 16 18 20
Per doz..... $3.75 4.00 4.75 5.25
Water.
Galvanized... qts. 10 12 14
Per doz..... $1.95 2.20 2.45
Wood.
Cable, 2-Hoop.....per doz. $1 70
Cable, 3-Hoop..... " 1 90
Cedar, 3-Hoop..... " 2 85
Standard, 2-Hoop.... " 1 60
Standard, 3-Hoop.... " 1 80

PANS

Dripping.....60&5%
Fry
Common .....75&10%
Acme 70%
Roasting.
Paxton,
Nos..... 1 2 3 4
Per doz.... $4.75 5.75 6.50 7.50
Neverburn . . 4.00 4.50 5.50 6.00
Savory, No. 200.....per doz. $8.00

PAPER.

Building.
Plain.....per 100 lbs. $1 25
Tarred..... " 1 35
Tarred Felt..... " 1 65
No. 20, Red Rosin....per roll, 40
No. 30, Red Rosin.... " 55
Sand and Emery.
Star ..... low list, 50%
B. & A.....50%
Wrapping.
Drab Fiber.....per lb. $0 00
Rag..... " 0 00

PARERS.

Apple.
Bay State.....per doz. $13 50
Turntable..... " 0 00
White Mountain..... " 5 00
Reading..... " 7 00
Potato.
Goodsell's Saratoga, 10½ in., doz. 6 50
Goodsell's Saratoga, 5 in., doz. 5 50

PICKS.

Adze Eye Ore.....70%
Drifting and Poll Picks.....70%
Plumbs, Railroad.....70%
Surface.....70%

PINCERS.

Carpenters', cast steel,
Inches..... 6 8 10 12
Per doz..... $2.00 2.60 2.95 3.75
Blacksmiths'.....45%
Heller's.....40%

PINS.

Clothes.
Common.....per box of 5 gro $0 52
Hoyt's..... " " 31
U. S..... " " 70
Picket.
Fluted, 15-in.....per doz. $0 70
Fluted, 21-in..... " 1 60
Spiral..... " 1 90

PIPE.

Conductor.
Territory.
Eastern.....70%
Central.....70&5%
Southern.....70%
Western.....70%
Southwestern.....65&5%
Lead.
Full coils.....per lb. 7½c
Cut coils..... " 7½c
Stove
Acme—Inches.... 5 6 7
Smooth, per jt... 8½c 9½c 10½c
Planished, " 32 c 33 c 43 c
Peerless—Smooth, 7½c 8 c 9½c
Polished.....14½c 15½c 18 c
Planished.....28 c 31 c 35½c
Made-up—Inches.. 5 6 7
Smooth..... 7½c 8 c 9½c
7 to 6 in. Smooth Tapers, pr jt...13c
6 in. Smooth T's..... " 27c
7 to 6 in. Planished Tapers.....45c
Yale Patent Lock Pipe—Stove.

Blue Steel:	5"	6"	7"	7" to 6"
	Cents			
Battle Axe Blue...	7	7½	9½	10½
Can't Slip " ..	7½	8½	10	11
Peerless " ..	7½	8½	10	11
Duplex " ..	10	11	13	14
Yale, Rus. Pin....	15	16	17	18
Duplex Planished.	30	31	37	38
Galvano, Gal.....	15	16	17	18

If wanted made up, add per joint or grooved, 1c; riveted, 1½c. Crating made-up pipe extra.
Wrought Iron Gas Pipe.
⅛@½-in., black.....discount, 60%
⅛@½-in., black..... " 60,10&5%
¾-in. to 6-in., black... " 70%
7-in. to 12-in., black... " 62½%
⅛@½-in., galvanized.... " 42%
⅛@½-in., galvanized.... " 50%
¾-in. to 6-in., galvan'd " 57½%
7-in. to 12-in., galvan'd " 45%

PLANES.

Sargent Iron Bench.....60%
Stanley Iron Bench.....25&5%

PLANTERS.

Corn.
Monitor.....per doz. $7 75
Triumph..... " 6 00
Segment..... " 9 00
Potato.
Acme.....per doz. $6 25
Challenge..... " 11 00
Pingree..... " 2 25
Eureka..... " 6 25

PLATES, TIN.

See Metals in Column 1.

PLIERS.

Button's—Ins.. 4½ 6 8 10
Per doz..... $2.75 3.35 4.15 5.15
Button's Pattern.
Inches..... 4½ 6 8 10
Per doz..... $2.25 2.75 3.25 4.25
Cutting
Bernard's.....30%
Lodi.....50%
End and Diagonal Cutting
Swedish Side.....70%
Utica Drop Forge & Tool Co.....50%
Fencing.
Farmers' Choice.....per doz. $8 00
Russell's..... " 8 25
Flat and Round Nose.
Bernard's.....30%
German.....65%
Lodi.....50%
Paragon.....50%
Gas.—Inches.. 7 8 10 12
Per doz..... $3.00 3.50 4.50 5.50

Tinners'.
Hollow.....40%
Solid.....each, 5½c

PLUMBS AND LEVELS

Common.....60&10&10%
Cook's.....40%
Davis' Iron.....25%
Davis' Inclinometer.....15%

POINTS

Drive Well Points.....75&5%

POKERS, STOVE.

Wr't Steel, str't or bent, per doz. $0 55
Wr't Steel, wood hand'ls " 80
Nickel Plated, coil hand'ls " 65

POKES, ANIMAL.

Cracker Jack, wr't steel, per doz. $4 50

POLISH.

Metal.
Pride of the Bar..... $2 00
Putz Cream,
Pts..... 1-6 ½ ¾
Per doz. $0.80 1.10 1.65
Pts..... 1 2 3 8
Per doz..$2.75 4.50 7.50 12.50
White Silk, half pints, per doz, $2 00
White Silk, 6-oz. cans, per doz. 1 00
Wondershine,
Pts..... 1-6 ½ 1 2
Per doz. $0.70 1.35 2.25 3.00.
George William Hoffman
U. S. Metal Polish Paste, 3-oz boxes, per doz, 50c; per gro 4 55
½-lb. boxes.....per doz 1 20
1-lb. boxes ..... " 2 25
U. S. Liquid, 8-oz cans, per doz, $1.25.....per gro 12 00
Barkeepers' Friend Metal Polish.....per doz 1 75
.....per gro 18 00
Shoe.
M. C. D.....per doz.....35c@50c
F. C. O..... " 40c
T M..... " .55c@$1 75
Imperial.....per gro 5 00
Stove.
Black Eagle, 1-lb. cans, pr gr, $15 00
Black Silk—
5-lb. pail..... $0 75
Paste, 5-oz. cans....per doz. 75
Paste, ½-lb. cans.... " 1 05
Liquid, ½-pt. cans... " 1 00
Liquid, 6-oz. cans... " 75
Steel Range Gloss.... " 1 75
Blackene, 1-lb. cans...per gro. 13 00
Black Jack, ½-lb. cans. " 9 25
Dixon's Card. of Iron. " 5 75
Nickel Plate..... " 4 50

POPPERS, CORN.

Round or Square, 1-qt. per doz. $1 05
Square, 1½-qt..... " 1 15
Square, 2-qt..... " 1 35
4-qt..... " 3 75

POTS, FIRE.

Berns.....each, $3 85
Clayton & Lambert's,each,$4 75@6 25
Gate City.....each, 6 25
Gem.....each,$6 75@8 50

POWDER.

See Ammunition.

PRESSES, FRUIT AND JELLY.

Enterprise Manufacturing Co.....25%
Henis.....per doz. $1 85

PRIMERS

See Ammunition.

PRUNERS.

Disston's Pole.....per doz. $6 50
Henry's Improved..... " 75&10%
Water's Improved..... " 80%

PULLERS.

Cork.
Daisy..... each, $3 10
Phœnix..... " 1 40
Quick and Easy..... " 2 70
Nail.
Giant.....per doz. 10 50
Giant Pattern..... " 6 00
Jumbo..... " 9 00
Tack—Giant..... " 40

PULLEYS.

Awning—Jap'd.....60%
Clothes Line.....50&10%
Hay Fork.
Iron Wheel, 5-in.....per doz. $1 75
Wood Wheel, 6-in.... " 1 75
Wood Wheel, 6-in., pass knot, ...per doz. 2 15
Hot House—Jap'd.....50&10%
Screw—Jap'd.....60%
Side—Jap'd.....50&10%
Sash.
Common.....per doz. $0 20
Common-Sense, 2-in.. " 20
Empire Pattern, 2-in.. " 20
Ideal..... " 20
Steel..... " 35

PUMPS.

Pitcher Spout.
Nos..... 1 2 3 4
Each..... $1.10 1.23 1.40 1.85
Spray.
Blizzard.....per doz.$14 50
Cyclone, tin..... " 3 40
Cyclone, copper..... " 6 75
Daisy..... " 9 00
Little Giant.....each,... 2 25

PUNCHES.

Conductors'.
No 22.....per doz $2 25
Machine.....per lb 19
Saddlers'.
Common ... .per doz 60c@70c
Good..... " 72c@84c

PUTTY.

In Bladders.
Strictly pure.....per 100 lbs. 2 35

RAIL.

Barn Door.
Matchless, 1-in..... 3 c
Matchless, 1½-in..... 3½c
Storm King..... 4 c
Sliding Door.
Painted steel.....per ft. 4½c
Bronzed wrought iron...per ft. 8½c

RAKES.

Coal or Wood.....per doz. $5 20
Garden.
Steel.....70%
Steel, bow.....70%
Malleable iron, heavy.....60&10%
Hay.
Wood.....$1 50@$2 00
Lawn—Wood.
XXX.....per doz. $1 00
Automatic..... " 5 25
Lawn Queen..... " 3 00
Jumbo, 36 teeth..... " 5 50

RASPS—See Files.

RAZORS.

Bo-ras-ic.....50%
Red Devil.....50%
Tree Brand.....50%

REGISTERS

Black or White Japanned or Plated.....70&10%
R-Faces Black or White or Plated.....75&10%
White Porcelain Enameled...50&10%
Brass & Bronze..... 40%

RINGS.

Bull.
Copper.....2½ in. 3in.
Per doz.....$1 35 $1 75
Rea's Improved Self-Piercing copper, pr doz 2 00 ....
Steel, per doz..... 85 95
Nickel plated..... 1 35 ....
and Ringers—Hog.
Blair's Rings.....per doz. $0 58
Blair's Ringers..... " 75
Brown's Rings..... " 50
Brown's Ringers..... " 80
Champion Ringers.... " 1 60
Hill's Ringers..... " 70
Hill's Ring, boxes.... " 47
Major Rings..... " 60
Perfect Ringers..... " 95
Wolverine Rings..... " 1 40
Wolverine Ringers.... " 80
Fruit Jar.
White.....per lb.....30c
Key.
Split, round.....per doz. $0 17
Split, square..... " 32
Ball, round..... " 32

RIVETS.

and Burrs.
Copper Belt.....33⅓%
Coppered Iron.....60&10&5%
Tinners'.....60&10%
Hame.....per lb. $0 10
Slotted Clinch per doz 40c@45c
Tubular
Nos 1 and 2 assorted sizes, doz, 45c

RIVET SETS

See Sets.

ROPE.

Cotton.
¼, 5-16 in. Com on reels. .per lb. 11½c
¼, 5-16 in Com. in coils.. " 12 c
¼, 5-16 Imperial in coils.. " 21 c
Sisal.
1st Quality.....12 c
Hardware Grade, rates, per lb...10 c
Pure Manila.
1st quality.....per lb.15½c
Hardware Grade, rates... " 14½c

RULES.

Boxwood.....50&10%
Ivory.....

SASH WEIGHTS.

See Weights.

SAWS.

Back.
Disston's.....25%
Jackson's.....25%
Butchers'.
Disston's.....30%
Circular.
Disston's.....50%
Hiles'.....50&10%
Compass.
Common.....per doz $1 35@1 60
Disston's .....%25
Cross-Cut
Disston's.....45%
Dehorning.
Disston's.....per doz. $5 75
Hack.
Disston's.....25%
Keystone.....30%
Hand and Rip.
Brown's.....30%
Disston's No. 7.....30%
Disston's Nos 8, D8, 12, 76, 112, D100, and 120 (new list).....25%
Keystone.....30%
Enterprize, hand.....per doz. $5 00
Our Saw, hand..... " 4 00
Our Saw, rip..... " 4 50
Keyhole—Disston's.....25%
Kitchen.
Sterling 25%
One Man.....50%
Panel
Brown's 30%
Disston's No. 7.....30%
Disston's No. D100.....25%
Pruning.
Brown's 25%
Disston's 25%
Wood
Common.....per doz. $4 50
Clover Leaf..... " 6 00

SAW BUCKS—See Bucks.

SAW SETS—See Sets.

SAW TOOLS—See Tools.

AW FRAMES.

Common, plain.....per doz. $1 25
Common, painted..... " 1 70

SCALES.

Counter.
Pelouze.....40&10%
Platform.
Osgood.....50%

SCOOPS.

Grain.
½-bu. "Hercules".....per doz. 13 70
1-bu. "Hercules"..... " 15 00

SCRAPERS.

Box.
Triangular.....per doz. $4 00
Cabinet.
Cast Steel . . . . per doz , 60c@75c
Road.
Cubic ft. 7 5 3
Without run's, ea. $4.00 3.75 3.50
With runners, ea.. 4.25 4.00 3.75

SCREWS.

Bench.
Iron, in..... 1 1½ 1¾
$3.50 4.00 4.75
Wood, white maple...per doz. $3 50
Hand—Wood.....10%
Hand Rail.....80&10%
Jack.....70&10&5%
Lag or Coach—all sizes, gimlet pointed.....75&5%
Saw—Centennial
Nos .. 1 2 3 4 5 6
Per doz. 18c 20c 26c 30c 23c 25c
Wood.
F. H. Bright.....87½&5%
R H Blued.....85%
F. H. Jap'd.....82½%
F. H. Brass.. .....85%
R. H. Brass.....80%
R. H. Nickel Plated.....75-10%

SCYTHES.

Be Ve Be, grass.....per doz. $8 50
Clipper, grass..... " 8 00
Clover Leaf Dutchman. " 8 00
Honest Dutchman..... " 8 00
Be Ve Be..... " 8 00

SHAVING SETS.

Smith & Hemenway.....60%

SETS.

Nail.
Round, common.....per doz. $0 33
Square, common..... " 42
Octagon, common.... " 33
No. 5, square..... " 75
Cup point, knurled... " 75
Rivet.
Farmers'.....per doz. $1 20
Tinners'.....50&10%
Saw.
Aiken's Pattern.....per doz $3 50
Common Lever..... " 1 20
Disston's Monarch.... " 6 50
Disston's X Cut ..... " 12 00
German..... " 1 05
Morrill's Old Style.... " 5 00
Morrill's Pattern..... " 3 25
Leach's..... " 80
Nash's Hand..... " 3 15
Nash's X Cut..... " 4 20
Stillman's Lever..... " 1 30
Stillman's X Cut. ... " 2 50

SHARPENERS, SKATE.

Diamond.....per doz $1 60
Smith & Hemenway 20%

SHAVES, SPOKE

Iron.....per doz $1 10@1 85
Wood ..... " 2 75@4 75
Bailey's .....50&5%
Goodell's 15%

SHEARS

Pruning
Buckeye, No. 1.....per doz $5 75
Buckeye, No 2..... " 7 40
California Pat., 9-in.. " 3 20
Cailfornia Pat., 10-in.. " 4 00
Draw Cut, No. 3..... " 13 75
Draw Cut, No. 4..... " 16 50
Henry's Pat. 0 01 14 012
Per doz.....$1.40 2.10 2.90 2.80
Star.....per doz $4 00
Sheep—No BBA.
Inches..... 6 6½ 7
Reg. Grip.....$11.25 11.50 12.00
Nar. Grip.,doz.... 11.00 11.25 12.25
Tinners'—See Snips.

SHEAVES, SLIDING DOOR.

Common.
Inches..... 3 4 5
Per set..... $0.34 .42 .70
Hatfield's.
Per set..... $0.75 1.00 1.00

SHELLS—See Ammunition.

SHELLERS, CORN.

Union.....per doz. $6 75

SHIELDS.

Expansion Bolt Shields.....50&10%

SHOES.

Conductor.....60&10%

SHOE POLISH—See Polish.

SHOT—See Ammunition.

SHOVELS AND SPADES.

Coal
No 2 Woodford.....per doz. $5 50
No. 182..... " 6 00
Ames' new list . ....Discount, 12½%
Per doz.
Neverbreak, hollow bck, blk. $15 75
National.... " " " 14 75
Buckeye.... " " " 10 00
Mohawk.... " " " 9 00
Drain.
Iwan's Perfection.....50%
Railroad, etc.
Black Diamond.....per doz. $1 50
Crescent..... " 5 75
Keystone..... " 8 75
Star..... " 4 75
Vaterland..... " 9 50
Hollow Back..... " 4 75
Ames, new list .....Discount, 12½%
Snow.
Per doz.....$1.65@$9.00
Alaska Steel.
D Handle.....per doz. $3 50
Long Handle..... " 3 00

SINKS.

Cast Iron.
Painted.....50&10%
Enameled, White.....50&10%
Wrought Steel.
Painted, new list.....40-10&5%

SLEDGES—See Hammers.

SNAPS, HARNESS.

Champion.....33⅓%
German Pattern.....30&5%
Judd's Pattern.....50%

SNATHS.

Double Ring, Bush.....per doz. $6 00
Patent Loop, Bush..... " 5 75
Patent Loop, Grass..... " 5 50

SNIPS, TINNERS'.

Wiss.....40%
National.....40&10%

SOLDER—See Metals.

SPRINGS, DOOR.

Perfect.
Nos..... 1 2 3 4
Per doz.....30c 35c 40c 54c
Reliance.
Per doz ... light, $1.25; heavy, $2 50
Star.
Per doz .... light, 90c; heavy, $1 35
Torrey's.....per doz. $1 35
Warner's No..... 11 13
Per doz..... 75c $1 35

SQUARES.

Steel and Iron.....70&5%
(Add for gluing, $2.50 per doz., net.)
Mitre.
Try.
Try and Bevel.
Try and Miter.
Fox's.....per doz. $5 75
Winterbottom's.....70%

SQUEEZERS, LEMON.

Common Wood.....per doz. $0 70
Porcelain Lined, Wood.. " 1 25
Boss, malleable iron.... " 1 20
Iron Frame, porc'n bowl " 1 90
Iron Frame, glass bowl . " 2 35
Little Giant, tin'd iron . " 4 00
Drum, japanned..... " 3 60
Drum, nickel plated ... " 4 50

STAPLES

Blind.
Barbed.....per lb . . .9¼@9½c
Butter Tub..... " .....8 @8½c
Fence—less than carload.
Polished.....per 100 lbs. $2 30
Galvanized..... " 2 60
Netting.
Galvanized.....per 100 lbs. 4 00
Wrought.
Wrought Staples, Hasps and Staples, Hasps, Hooks and Staples, Hooks and Staples.....80-10&10%
Extra heavy.....75&10%

STEELYARD.

Discount 25%.

STONES.

Axe.
Hindostan .....per lb 5½@7 c
More Grit..... " 9½c
Washita ..... " 17 c
Emery.....60%@60&5%
Oil—Mounted.
Arkansas Hard.....per doz.$23 00
Arkansas Soft..... " 15 50
Hindostan .....per lb 6½@6¾
Oil—Unmounted.
Arkansas Hard .....per lb $2 05
Arkansas Soft ..... " 1 10
Lily White..... " 45
Queer Creek..... " 15
Ouachita..... " 38
Washita..... " 26
Sythe.
Black Diamond.....per gro. $8 00
Crescent..... " 4 25
Gem Corundum..... " 7 50
Green Mountain..... " 4 50
La Moille ..... " 7 00
Quinnebog..... " 5 00
Red End ..... " 3 75

STOPS, BENCH.

Hotchkiss'.....per doz. $3 50
Stearns'..... " 4 75

STOPPERS, FLUE.

Common.....per doz. $0 40
Crown..... " 45
Gem, flat, painted..... " 85
Gem, cor'd, decorated... " 70
Kirch's..... " 90
Perfect..... " 70@85
Skinner's Common Sense " 80

STOVE PIPE—See Pipe.

STOVE BOARDS—See Boards

STOVE POLISH—See Polish.

STRAPS.

Scoop.....per doz prs., $1 85
Skate..... " " 60@70c

STRETCHERS.

Carpet.
Bullard's.....per doz. $3 90
Excelsior..... " 5 25
Malleable Iron..... " 70
Perfection..... " 6 30
King..... " 4 50
Wire.
N. S. Elwood's.....per doz. $6 00
O. S. Elwood's..... " 6 00
Little Giant..... " 5 75
Safety..... " 10 00
Star Lever..... " 6 25
Canton Tackle Block. " 9 50
Warner's ..... " 6 25

SWIVELS.

Malleable Iron.....per lb. $0 70
Wrought Steel.....per gro. 4 50

TACKS.

American Cut.....90&15%
American Wire.....85&20%
Bill Posters Cut.....90&20%
Blued Carpet.....90&10%
Tinned Carpet.....90&10%
Gimp.....90&10%
Upholsters' Cut.....90&20%
Upholsters' Wire.....90&10%
Double Pointed.....90%
Copper.....per lb. 32c
Canvas Nails.....75&5%
Clout Nails.....75&10%
Hungarian Nails.....80%

TAPES, MEASURING.

Asses' Skin.....40&10%
Bend Leather.....20%
Patent Leather.....20%
Lufkin's Steel.....25%
Lufkin's Metallic.....30%

TEE BEVELS—See Bevels.

THERMOMETERS.

Tin Case.....per doz. 80c@$1 25
Wood Back..... " $2.00@12 00
Glass..... " 12 00

TIES.

Bale.
Single Loop.....80&5%
All other kinds.....70%
Cow—See "Chains."

TOOLS, SAW.

Disston's Universal.....40%
Miniature.
Smith & Hemenway.....25%

TRAPS.

Fly.
Ballon.....per doz. $1 25
Harper's..... " 1 35
Game.
Newhouse.....40&10%
New Victor.....70&10%
Mole.
Reddick's.....per doz. $6 00
Mouse and Rat.
Wood Choker ..per doz. holes $0 13
Tin Choker..... " " 75
Delusion.....per doz. 1 15
Marty Rat..... " 6 25
Marty Rat Imitation. " 3 50
Marty Mouse..... " 3 00
Marty Mouse Imitation " 2 00
Hold-em, wire rat.... " 3 75

TROWELS.

Brick.
Clover Leaf.....30%
Brade's.....15&5%
Disston's.....30%
Rose's.....20%
Plasterers'.
Clover Leaf.....40%
Disston's.....25%
W. & McP.....25%

TRUCKS.

Bag.....each, $2 75
Handy..... " 1 85
Warehouse.....50&10%
No..... 1 2 3
Half Ironed..... $3.00 3.85 5.50
Full Ironed..... 3.55 4.50 6.45

TUBS, WASH

Standard, Wood Ex.
Nos..... " 2 1 large
Per doz.....$5.00 6.00 7.00 9.50
Dowell.
Per doz..... 5.35 6.35 7.00 9.50
Cedar.
Per doz.... . 6.10 7.10 7.90 10.80
Indurated.
Per doz..... 8.55 9.45 10.80 13.50
Galvanized.
No..... 1 2 3
Per doz.....$6.00 6.75 7.75

TWINE.

Per lb.
3-ply Cotton Wrapping 25c
4 " " " 25c
" " Extra Wrapping.....27c
4 " " " Hvy. Wrapping 25c
4 " " Wrapping on tubes....27c
3 " " " " cones....25c
4 " " " " " 25c
India Hemp, ¼-lb. balls 19c
" " ½-lb. " 18c
" " ¼-lb. " .....doz. 75c
2-ply Jute, ¼-lb. " 14c
3-ply Jute, ¼-lb. " 13c
Jute Wrapping, ½-lb. balls.....14c
Jute Wool, 1-lb. balls.....9½c
Seins.
Nos..... 9 12 15
Soft.....per lb 26½ 26 25
Med..... " 26½ 26 25
Hard..... " 27 26½ 26
Staging, ¼-lb. ball, size 21.....26½c
" " " " 24.....26c
" " " " 27.....26c
Bagging " " 23c
3-p y "B" in hanks 18c
4- " "B" " 18c
3 " "A" " 27c
3 " Silver Finish, in hanks...37c
Fodder or Lath.
130 strand.....6½c
200 strand.....—c

VISES.

Phœnix.....30%
Phœnix Oval Slide.
Inches..... 2½ 3 3½ 4½
Each..... $1.25 1.50 1.85 2.75
Parker's Parallel.....18&20%
Parker's Victor.....15%
Parker's Combination.....75%
Solid Box.....40&5%
Adams' Mechanics'.....each 2 50
Williamson's Universal.....60%

WARE.

Stove Hollow Ware.
Plain or Unground.....50%
Ground Ware.....45%
Enameled Ware.....33⅓%
Country Hollow Ware, per 100 lbs. $3 00
White Enameled Ware.
Maslin Kettles.....60&10%
Covered Ware.
Tin'd and Turn'd.....35&10%
Enameled.....45&10%
Glue Pots,
Tinned.....25%
Enameled.....30%
Enameled.
Cherry Blossom and Chrysolite..50%

WASH BOARDS—See Boards.

WASHERS.

Standard O G. cast iron . . .per lb. 2½c
Wrought iron in bulk, per lb.:
In. ½ ⅝ ¾ ⅞ 1 ⅛ 1¼ 1½
9c 6½c 5c 4½c 4½c 4½c 3½c
Wrought steel in 5-lb. boxes, per lb.:
In. ½ ⅝ ¾ ⅞ 1 1⅛ 1¼ 1½
10c 7c 6c 5½c 5c 5c 4½c

WASHING MACHINES—See Machines.

WEDGES.

Ax.....per doz. $0 30
Galling.....per lb. 10½
Saw..... " 8½

WEANERS.

Calf.
Fuller's, per doz.....$2 00 to $2 50
Tyler's Safety, per doz 1 85 to 2 40
Carroll's, per doz..... 3 00 to 3 75
Standard, per doz..... 3 00
Hoosier, per doz..... 3 50 to 4 00

WEIGHTS.

Hitching.....per lb. 2½c
Sash—f.o.b. Chicago....pr ton, 26 50

WHEEL BARROWS.

Common Railroad.....per doz. $17 00
Heavy Railroad..... " 24 00
Panama Steel Tray.... " 39 00
Klondike Steel Tray.. " 28 00

WHEELS.

Corundum.....70&10&5%
Emery.....75&5%
Well. Inches.. 8 10 12 14
Per doz..... $2.40 3.25 4.00 6.00

WIRE.

Barbed. Painted. Galv'd
Carloads . . per 100 lbs. $2.65 $2.95
Less than car " 2.70 3.00
Brass.
In coils.....20%
In 1-lb. spools, new list.....50%
Broom—Tinned . . . 60&10&10&10%
Cable—Same price as Barbed Wire.
Copper.
In coils.....20&10%,33⅓%
1-lb. spools, new list.....50&10%
Fence—Smooth.
Nos. 6 to 9, An'eal'd, pr 100 lbs. $2 30
Nos. 6 to 9, Galv'd.. " 2 60
Hair—New List.....50%
Market.
Bright, full bdles.....70&5%
Bright, broken bdles.....70%
Coppered, full bdles.....70%
Coppered, broken bdles.....65&10%
Tinned, full bdles.....75&5%
Tinned, broken bdles.....65&10%
Picture—In coils . . . . 80% @80&10%
In 5-lb. spools.....per lb.....26c
Plain—Small lots..... $2 10
Car lots..... 2 05
Small spools 5c per 100 higher.

WRENCHES.

Acme Standard.....60%
Alligator No. 1.....85cnet
Always Ready.....50%
Coe's Standard.....40&10&5%
Agricultural.....70&10%
Ellis Adjustable.....25%
Malleable "S".....per lb. 08c
Malleable..... " 08c
Stillson Pipe.....70%

BEMIS & CALL'S WRENCHES.

Improved Adjustable S nut.....40%
Improved Adjustable S pipe 40%
Briggs' Pattern nut.....40%
Combination Bright.....40%
Combination Black.....40&5%
Steel Handle nut.....50%
Merrick Pattern nut.....50%

WRINGERS.

No. 22, Guarantee....per doz. $32 50
No. 110, Guarantee.... " 32 50
No. 110, Brighton..... " 23 50
No. 110, Bicycle..... " 31 50
No. 500, Royal..... " 32 50
No. 350, Universal..... " 28 00
No. 300, Novelty..... " 28 00
No. 310, Keystone..... " 28 00
No. 100, Rival..... " 23 50

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Augers—Post Hole

Iwan Bros., Streator, Ill

Boilers—Steam

Boynton Furnace Co., New York and Chicago
Kellogg-Mackay-Cameron Co., Chicago, Ill

Boiler Handles

Berger Bros. Co., Philadelphia, Pa

Bolts

Columbus Bolt Wks., Columbus, O
Star Expansion Bolt Co., New York, N.Y

Boxes—Hardware

Green Co., A. H., New York

Brakes—Cornice

Bertsch & Co., Cambridge City, Ind
Dreis & Krump, Mfg. Co., Chicago, Ill
Niagara Machine & Tool Works, Buffalo, N. Y
Robinson, Mfg. Co., J. M., Cincinnati, O

Brass and Copper

Hungerford, U. T., Brass & Copper Co. New York, N. Y
Plume & Atwood Mfg. Co., Chicago, Ill

Cans

Stuber & Kuck, Peoria, Il

Carpenters' Tools

Griffin Mfg. Co., Erie, Pa
North Bros. Mfg. Co., Philadelphia, Pa

Carriage Forgings

Columbus Bolt Works, Columbus, O

Ceilings

Berger Mfg. Co., Canton, O
Burton, W. J. Co., Detroit, Mich
Canton Art Metal Co., Canton, O
Canton Mfg. Co., Canton, O
Eller Mfg. Co., Canton, O
Friedley-Voshardt Co., Chicago, Ill
Keighley Met. Ceiling Co., Pittsburg, Pa
Milwaukee Corrugating Co. Milwaukee, Wis

Cement—Plumbers

Obermayer Co., S., Cincinnati, O

Cement—Roofing

Auld & Conger Co., Cleveland, O
Conners, Wm. Paint Mfg. Co., Troy, N.Y

Chains

Bridgeport Chain Co., Bridgeport, Conn

Chains—Jack and Safety

Hungerford, U. T. Brass & Copper Co., New York

Chimney Tops

Iwan Bros., Streator, Ill

Clothes Dryers

Mannen & Esterly, Cleveland, O
Martcross Co., Chicago

Coil Springs

Pullman Mfg. Co., Rochester, N.Y

Conductor Hangers

Berger Bros. Co., Philadelphia, Pa

Conductor Pipe

Berger Mfg. Co., Canton, O
Canton Mfg. Co., Canton, O
Clark, Quien & Morse, Peoria, Ill
Eller Mfg. Co., Canton, O
Friedley & Voshardt, Chicago, Ill
La Crosse Steel Roof. Co., La Crosse, Wis
Schoedinger, F. O., Columbus, Ohio
St. Paul Roofing, Cornice & Ornament Co., St. Paul, Minn

Copper and Brass

Hungerford, U. T., Brass & Copper Co. New York, N. Y
Plume & Atwood Mfg. Co., Chicago, Ill

Core Compound

Obermayer Co., S., Cincinnati, O

Corn Cribs

Denning Wire & Fence Co., Cedar Rapids, Ia

Cornices

Berger Mfg. Co., Canton, O
Canton Mfg. Co., Canton, O
Eller Mfg. Co., Canton, O
Schoedinger, F. O., Columbus, O
St. Paul Roofing, Cornice & Ornament Co., St. Paul, Minn

Cornice Brakes

Bertsch & Co., Cambridge City, Ind
Dreis & Krump Mfg. Co., Chicago, Ill.
Niagara Machine & Tool Wks., Buffalo, N. Y.
Robinson, Mfg. Co., J. M., Cincinnati, O

Corrugated Iron

Sykes Steel Roofing Co., Chicago, Ill

Couplings—Solderless

Modern Improvements Mfg. Co. Brooklyn, N. Y.

Crimping Machines

Robinson, Mfg. Co., J. M., Cincinnati, O

Cut Offs—Rain Water

LaCrosse Steel Roof. Co., La Crosse, Wis
Milwaukee Corrugating Co. Milwaukee, Wis.
Sullivan-Geiger Co., The Indianapolis, Ind.

Dampers

Sayre Stamping Co. Sayre, Pa.
Howes Co., S. M., Boston, Mass.

Damper Clips

Waterloo Register Co., Waterloo, Iowa

Eaves Trough

Canton Mfg. Co., Canton, O
Eller Mfg. Co., Canton, O
Iwan Bros., Streator, Ill
La Crosse Steel Roof Co., La Crosse, Wis
Milwaukee Corrugating Co.. Milwaukee, Wis
Schoedinger F. O., Columbus, O
St. Paul Roofing, Cornice & Ornament Co., St. Paul, Minn
Whitacre, J. E. Mfg. Co., Rockford, Ill
Wheeling Corrugating Co., Wheeling, W. Va

Elbows—Conductor Pipe

Canton Mfg. Co., Canton, O
Dieckmann, Ferdinand, Cincinnati, O.
Milwaukee Corrugating Co. Milwaukee, Wis
Eller Mfg. Co., Canton, O
St. Paul Roofing, Cornice & Ornament Co., St. Paul, Minn
Wheeling Corrugat'g Co., Wheeling, W. Va

Elevators

Kimball Bros. Co., Council Bluffs, Ia.

Enamel—Iron

Nickel Plate Stove Polish Co., Chicago, Ill

Enameled Ware

Lalance & Grosjean Mfg. Co. Chicago, Ill
Star Enameling & Stamping Co., Pittsburgh, Pa

Enameler

Pell, Jno., Columbus, Ohio

Fencing—Wire

Denning Wire & Fence Co., Cedar Rapids, Ia
Pittsburgh Steel Co., Pittsburgh, Pa

Files

Carver File Wks, Philadelphia, Pa
Disston, Henry & Sons, Philadelphia, Pa

Forming Rolls

Bertsch & Co., Cambridge City, Ind
Niagara Machine & Tool Wks, Buffalo, N. Y

Foundry Supplies

Obermayer, S. Co., Cincinnati, O
Stevens, F. B., Detroit, Mich

Furnace Cement

Connors Paint Mfg. Co., Wm., St. Louis, Mo

Furnaces—Hot Air

Boynton Furnace Co. New York and Chicago
Co-operative Fdy. Co., Rochester, N. Y
Forest City Fdy. & Mfg. Co., Cleveland, O
Green Fdy. & Furn. Wks., Des Moines, Ia
Haynes-Langenberg Mfg. Co., St. Louis, Mo
Henry & Scheible Co., Cleveland, O
Kelsey Heating Co., Syracuse, N. Y
Lennox Furnace Co., Marshalltown, Ia
March-Brownback Stove Co., Pottstown, Pa
Monroe Fdy. & Furn. Co., Monroe, Mich
Mueller, L. J. Furn. Co., Milwaukee, Wis
Rait & Co., Walter S., Chicago, Ill
Schwab, R. J. & Sons Co., Milwaukee, Wis
Standard Register Co., Cleveland, O.
Stove & Range Co of Pittsburgh, Pittsburgh, Pa
Youngstown Furn. & Supply Co., Youngstown, O

Furnaces—Tinners'

Clayton & Lambert Mfg. Co., Detroit, Mich
Turner Brass Works, Sycamore, Ill

Furnace Pipe and Fittings

Green Fdy. & Furn. Wks., Des Moines, Ia
Mueller, L. J. Furn. Co., Milwaukee, Wis

Gas Stoves

Stove & Range Co. of Pittsburgh, Pittsburgh, Pa

Gasoline Lighting System

Gloria Light Co., Chicago, Ill

Generators—Acetylene

Ideal Epworth Acetylene Co., Waterloo, Iowa, & Johnstown, Penn

Grain Grader

Paxton & Gallagher Co., Omaha, Neb

Grinders

Royal Mfg. Co., Lancaster, Pa

Hangers—Door

Safety Door Hanger Co., Ashland, O

Hangers—Eaves Trough

Schoedinger, F. O., Columbus, O

Hangers—Garment

Pullman Mfg. Co., Rochester, N.Y

Hardware Delivery Wagons

Sycamore Wagon Works, Sycamore, Ill

Hardware Jobbers

Clark, Quien & Morse, Peoria, Ill
Paxton & Gallagher Co., Omaha, Neb

Hardware Specialties

Carver File Co., Philadelphia, Pa
Clark, Quien & Morse, Peoria, Ill
Holt-Lyon Tarrytown, N. Y
Paxton & Gallagher Co., Omaha, Neb
Pullman Mfg. Co, Rochester, N. Y
Smith & Hemenway Co., New York, N. Y

Heating

Kellogg-Mackay-Cameron Co., Chicago, Il
Kelsey Heating Co., Syracuse, N. Y

Hinges

Griffin Mfg. Co., Erie, Pa
Lawson Mfg. Co., Chicago, Ill

Hollow Ware

Avery Stamping Co., Cleveland, O
Sperry, D. R. & Co., Batavia, Ill

Horse Nails

Standard Horse Nail Co., New Brighton, Penna

Ice Cream Freezers

North Bros. Mfg Co., Philadelphia, Pa

Insurance, Fire

Hardware Dealer's Mutual Fire Insurance Co. of Wisconsin

Iron Enamel

Nickel Plate Stove Polish Co., Chicago, Ill

Kitchen Utensils

Avery Stamping Co., Cleveland, O
Holt-Lyon Co., Tarrytown, N. Y
Lalance & Grosjean Mfg. Co., Chicago, Ill

Lanterns

Berger Mfg. Co., Canton, O

Lawn Fence

Denning Wire & Fence Co., Cedar Rapids, Ia

Lawn Mowers

Clipper Lawn Mower Co., Dixon, Ill

Levels

Baker-McMillen Co., Akron, O

Lighting

Gloria Light Co., Chicago, Ill
Ideal Epworth Acetylene Co. Waterloo, Iowa and Johnstown, Penna

Mail Boxes

Blick-Williams Co., Indianapolis, Ind
Peck-Hamre Mfg. Co. Berlin, Wis

Metal—Perforated

Harrington & King Perforating Co., Chicago, Ill

Metal Polish

Hoffman, Geo. W., Indianapolis, Ind
Nickel Plate Stove Polish Co., Chicago, Ill

Metal Shingles

Burton, W. J. Co., Detroit, Mich
Cortright Metal Roofing Co., Philadelphia, Penna
Nat'l Sheet Metal Roofing Co., Jersey City, N. J
St. Paul Roofing, Cornice & Ornament Co., St. Paul, Minn

Miters

Whitacre, J. E. Mfg. Co., Rockford, Ill

Nails and Tacks—Copper

Hungerford, U. T., Brass & Copper Co., New York, N. Y

Nuts

Columbus Bolt Works, Columbus, O

Paints and Paint Specialties

Buckeye Paint & Varnish Co., Toledo, O
Connors, Wm., Paint Mfg. Co., Troy, N. Y
Dixon, Jos. Crucible Co., Jersey City, N. J

Pencils

Dixon, Jos. Crucible Co., Jersey City N. J

Perforated Metal

Harrington & King Perforating Co., Chicago, Ill

Pistols

Stevens, J. Arms & Tool Co., Chicopee Falls, Mass

Plungers

Berger Bros. Co., Philadelphia, Pa

Polish—Metal

Nickel Plate Stove Polish Co., Chicago, Il

Polish—Stove

Nickel Plate Stove Polish Co., Chicago, Ill

Pumps

Berger Mfg. Co., Canton, O

Punches

Armstrong-Blum Mfg. Co., Chicago, Ill
Bertsch & Co., Cambridge City, Ind
Niagara Machine & Tool Works., Buffalo, N. Y
Robinson, Mfg. Co., J. M., Cincinnati, O
Weiss, L. T., Brooklyn, N. Y

Putty—Stove

Connors, Wm. Paint Mfg. Co., Troy, N. Y

Rasps

Disston, Henry & Sons., Philadelphia, Pa
Carver File Wks., Philadelphia, Pa

Razors

Smith & Hemenway Co., New York, N. Y

Registers

Henry & Scheible Co., Cleveland, O
Mueller, L. J., Furn. Co., Milwaukee, Wis
Schwab & Sons Co., Milwaukee, Wis
Standard Register Co., Cleveland, O
Tuttle & Bailey Mfg. Co., New York, N. Y
Waterloo Register Co., Waterloo, Ia

Revolving Display Stands

Revolving Bin Co., Wellston, Ohio

Rifles

Stevens, J. Arms & Tool Co., Chicopee Falls, Mass

Rivets

Columbus Bolt Works, Columbus, O
Hungerford, U. T., Brass & Copper Co., New York, N. Y

Roasters

Wheeling Corrugating Co., Wheeling, W. Va

Roofers' Supplies

Auld & Conger Co., Cleveland, O

Roofing—Asphalt

Stowell Mfg. Co., Jersey City, N. J

Roofing—Iron and Steel

American Sheet & Tin Plate Co. Pittsburgh, Pa
Berger Mfg. Co., Canton, O
Burton, W. J. Co., Detroit, Mich
Canton Art Metal Co., Canton, O
Canton Mfg. Co., Canton, O
Eller Mfg. Co., Canton, O
Follansbee Bros. Co., Pittsburgh, Pa
Friedley & Voshardt, Chicago, Ill
La Crosse Steel Roof. Co., La Crosse, Wis
Nat'l Sheet Metal Roof. Co., Jersey City, N. J
Schoedinger, F. O., Columbus, O
St. Paul Roofing, Cornice & Ornament Co., St. Paul, Minn
Sykes Steel Roofing Co., Chicago, Ill
Wheeling Corrugating Co., Wheeling, W. Va

Roofing Cement

Auld & Conger Co., Cleveland, O
Connors Paint Co., The Wm., Troy, N. Y
Taylor Co., N. & G., Philadelphia, Pa

Roof Paint

Dixon, Jos. Crucible Co., Jersey City, N. J

Rules

Lufkin Rule Co., Saginaw, Mich

Sash Balances

Pullman Mfg. Co., Rochester, N. Y

Saw Sets and Saws

Disston, Henry & Sons, Philadelphia, Pa
Smith & Hemenway Co., New York, N. Y

Screens—Perforated Metal

Harrington & King Perforating Co., Chicago, Ill

Screen Door Checks

Pullman Mfg. Co., Rochester, N. Y

Screws

Columbus Bolt Works, Columbus, O

Screw Drivers

North Bros. Mfg. Co Philadelphia, Pa

Seamless Tubing—Brass & Copper

Hungerford, U. T., Brass & Copper Co., New York, N. Y

Seed Cleaners

Paxton & Gallagher, Omaha, Neb

Sharpeners—Tool

Royal Mfg. Co., Lancaster, Pa

Shears

Bertsch & Co., Cambridge City, Ind
Niagara Machine & Tool Works, Buffalo, N. Y
Robinson, Mfg. Co., J. M., Cincinnati, O
Weiss, H. & Co., New York, N. Y

Sheet Metal Ornaments

Gerock Bros. Mfg. Co., St. Louis, Mo

Sheets—Black and Galvanized

Berger Mfg. Co., Canton, O
Taylor Co., N. & G., Philadelphia, Pa
Wheeling Corrugat'g Co., Wheeling, W. Va

Sheets—Planished

Follansbee Bros., Pittsburg, Pa
Taylor Co., N. & G., Philadelphia, Pa
Ward-Dickey Steel Co., Indiana Harbor, Ind

Shelf Boxes

Green & Co., A. H., New York, N. Y

Shot Guns

Stevens J., Arms & Tool Co., Chicopee Falls, Mass

Shovels

Avery Stamping Co., Cleveland, O

Siding

Milwaukee Artistic Metal Ceiling Co., Milwaukee, Wis

Sifters

Stuber & Kuck, Peoria, Ill

Skylights

Berger Mfg. Co., Canton, O
Burt Mfg. Co., Akron, O
Eller Mfg. Co. Canton, O
Schoedinger, F. O., Columbus, O
St. Paul Roofing, Cornice & Ornament Co., St. Paul, Minn

Skylight Gearing

Weiss, H. & Co., New York, N. Y

Slate Roofing

Auld & Conger Co., Cleveland, O

Solder

Taylor Co., N. & G., Philadelphia, Pa

Squares, Machinists'

Disston, Henry & Sons, Philadelphia, Pa

Stampings—Sheet Metal

Avery Stamping Co., Cleveland, O

Statuary

Gerock Bros. Mfg. Co., St. Louis, Mo

Stoves and Ranges

Champion Steel Range Co., Cleveland, O
Chicago Stove Works. Chicago, Ill
Culter & Proctor Stove Co., Peoria, Ill
Foster Stove Co., Ironton, O
Garner Heating Co., Lansing, Mich
Stove & Range Co. of Pittsburgh, Pittsburgh, Pa.
Union Stove Co., New York, N. Y

Stove Cement

Dixon, Jos. Crucible Co., Jersey City, N. J

Stoves—Gas

Champion Steel Range Co., Cleveland, O
Stove & Range Co. of Pittsburgh Pittsburgh, Pa

Stove Mats

Stuber & Kuck, Peoria, Ill

Stove Patterns

Cleveland Castings Pattern Co., Cleveland, O
Cope Pattern, Geo. W. Wks., Detroit, Mich
Quincy Pattern Co., Quincy, Ill
Vedder Pattern Works. Troy, N. Y
Weller Pattern Co. Quincy, Ill

Stove Pipe

Hemp & Co., St. Louis, Mo

Stove Polish

Black Silk Stove Polish Works. Sterling, Ill

Stove Pipe Thimbles

Stuber & Kuck, Peoria, Ill

Stove Putty

Connors Paint Mfg. Co., Wm., St. Louis, Mo

Stove Repairs

Brauer, A. G., Supply Co., St. Louis, Mo

Stove Trimmings

Cleveland Nickel Works, Cleveland, O
Gleason, Henry, New York, N. Y

Sugar Kettles

Sperry, D. R. Co., Batavia.

Supplies—Foundry

Obermayer Co., S., Cincinnati, O
Stevens, F. B., Detroit, Mich

Supplies—Stove Dealers'

Brauer, A. G., Supply Co., St. Louis, Mo

Tacks

Hungerford, U. T., Brass & Copper Wks. New York, N. Y

Tapes

Lufkin Rule Co., Saginaw, Mich

Technologist

Hooper, C. N. Dubuque, Iowa

Thermometers—Oven

Evans Stamping & Plating Co., Taunton, Mass

Tin—Perforated

Harrington & King Perforating Co., Chicago, Ill

Tin and Terne Plate

American Sheet & Tin Plate Co. Pittsburgh, Pa
Berger Mfg. Co., Canton, O
Follansbee Bros. Co., Pittsburgh, Pa
Taylor Co., N. & G., Philadelphia, Pa

Tinners' Tools

Auld & Conger Co., Cleveland, O
Berger Bros. Co., Philadelphia, Pa
Lufkin Rule Co., Saginaw, Mich
Niagara Machine & Tool Works, Buffalo, N. Y
Smith & Hemenway Co., New York N. Y
Taylor Co., N. & G., Philadelphia, Pa

Tinplate

American Sheet & Tin Plate Co., Pittsburg, Pa
Canton Art Metal Co., Canton, O
Eller Mfg. Co. Canton, O
Follansbee Bros. Co., Pittsburgh, Pa
Merchant & Evans Co., Philadelphia,
Schoedinger, F. O., Columbus, O
Taylor Co., N. & G., Philadelphia, Pa
Wheeling Corrugating Co., Wheeling, W. Va

Tinware Trimmings

Berger Bros. Co., Philadelphia, Pa

Tools, Etc.

North Bros. Mfg. Co., Philadelphia, Pa

Tools—See Carpenters' Tools

Tools—Linemen's

Smith & Hemenway, New York, N. Y

Tool Sharpeners

Royal Mfg. Co., Lancaster, Pa

Trowels

Avery Stamping Co., Cleveland, O
Disston, H. & Sons, Inc., Philadelphia, Pa
Griffin Mfg. Co., Erie, Pa

Tubing—Brass and Copper

Hungerford, U. T., Brass & Copper Co. New York, N. Y

Tubing—Heavy Tin

Dieckmann, Ferdinand, Cincinnati, O

Varnish

Buckeye Paint & Varn. Co., Toledo, O

Ventilators

Berger Mfg. Co., Canton, Ohio
Burt Mfg. Co., Akron, Ohio
Canton Mfg. Co., Canton, O
Crown Ventilator Co., Milwaukee, Wis
Eller Mfg. Co., Canton, O
Friedley & Voshardt, Chicago Ill
Globe Ventilator Co., Troy, N. Y
Merchant & Evans Co., Philadelphia, Pa
Pullman Mfg. Co., Rochester, N. Y
Schoedinger, F. O., Columbus, O

Wagons

Sycamore Wagon Wks., Sycamore, Ill

Wagon Stoves

Shirley, W. H., Galveston, Ind

Washers

Columbus Bolt Works., Columbus, O

Washing Machines

Brammer, H. F., Mfg. Co., Davenport, Ia
Rotary Washing Machine Co., St. Louis, Mo
White Lily Mfg. Co., Davenport, Ia & Toledo, O

Wire Goods

Denning Wire & Fence Co., Cedar Rapids
Pittsburgh Steel Co., Pittsburgh, Pa

Wants and Sales

For Yearly subscribers THE AMERICAN ARTISAN will insert under this head advertisements of six lines WITHOUT CHARGE for employers wishing to secure employes, persons seeking situations, parties desiring to purchase a business, businesses for sale, partners wanted, to exchange, etc. Those who respond to these announcements will please mention that they read the advertisement in

THE AMERICAN ARTISAN.

BUSINESS CHANCES.

PATENTS Hubert E. Peck, 624 F. St., N. W., Washington, D. C., Consulting Expert in Patent Causes. U. S. and Foreign Patents. Send for leaflet on "Rejected Patent Application."

For Sale—A good tin, cornice and furnace business, if taken at once, for spot cash. Goods and tools invoice at $1,000. Address H-2, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago.

For Sale—$4,000 stock of hardware, tinware, stoves and furniture. A good clean stock in a good town in eastern Indiana. Address H-100, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 2-3t

For Sale—Established hardware business of twenty years' standing located in good town in mining district of southwestern Wisconsin. Stock will invoice about $3,500 to $4,000. Building is a two-story brick, which I will either rent or sell. One other hardware store in town. Am willing to sacrifice in order to make quick sale. Address Lock Box 17, Shullsburg, Wisconsin. 2-2t

For Sale—First-class clean up-to-date stock of hardware and stoves with complete set of tinner's tools, invoicing about $9,000. Good location, low rent and good business. Will take real estate as part pay, balance must be cash. Address H-5, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 2-3t

For Sale—One-half interest in a good paying tin and furnace business. Good chance for the right man. We have now contracts for a number of furnaces for next season. Address H-4, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 2-3t

For Sale—Hardware, plumbing and heating business in good live town of 1,600 to 1,800 in the best farming country in central Illinois. Steady work for three mechanics outside of store. If interested write at once to Peter Haas & Sons, El Paso, Texas. 1-2t

For Sale—Good clean stock of hardware and tin shop, located in good farming country and in the heart of iron mining district. Stock will invoice about $4,500 and sales amount to $12,000 this year. Best of reasons for selling. Address North Freedom Hardware Company, North Freedom, Wisconsin. 1-2t

For Sale or Rent—Tin work, plumbing and heating business in a Wisconsin city. Population 7,000. The only tin shop in city doing a good business. Do not answer unless you mean business. Going out of business on account of health. Address E-93, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 1-3t

Plumber, steam and hot water fitter, 36 years of age, 16 years' experience in plumbing and heating in a large city, who can handle anything in the line, wishes to buy part interest in a good hardware store in lively town, where plumbing and heating can be handled with hardware. Address E-91, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 26-3t

TINNERS' TOOLS.

For Sale Cheap—One No. 1 agricultural tool rack in good condition. Address C. M. Bonham, Watseka, Illinois. 26-3t

For Sale—Good first-class tinner's benches with bench plates attached; $5.00 each. Address F. B. Karl, Delaware, Ohio.

HELP WANTED.

Wanted—A first-class iron pattern fitter on stove work. Capable to take charge of shop as foreman in an up-to-date pattern shop. Address H-6, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago.

Wanted—For a good North Dakota town, a strictly first-class tinner who has had some experience at plumbing and pipe work. Also a good hardware salesman. A permanent position to each if satisfactory. State age, experience, references and wages wanted. Address E-95, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago.

Wanted—A first-class tinner and furnace man. Good wages and steady job. State wages wanted. Address T. H. Trevett, 28 Main St., Champaign, Illinois. 26-3t

Wanted—Two first-class experienced furnace and boiler salesmen. Address L. J. Mueller Furnace Company, Milwaukee, Wisconsin. 26-ufn

SITUATIONS WANTED.

Wanted—A position as tinner by a young man 23 years of age with seven years' experience. Speaks German and English. Strictly honest, sober and reliable. Can furnish good references. Write the Reedsburg Hardware Company, Reedsburg, Wisconsin.

Situation Wanted—By March 1st or before, a permanent position by an all around tinner and furnace man. Can furnish best of references as to ability, habits, etc. Married, strictly temperate and reliable. Iowa preferred. Address E-100, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 2-3t

Situation Wanted—As foreman. Steel range department. 15 years' experience. Good references. Address E-99, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 2-1t

Situation Wanted—Experienced clerk would like to locate permanently with good reliable dealer. Five years' experience. First-class on stoves or builders' hardware. Will come and show results for one month. Can speak Swedish. Address C. V. Lindquist, Belvidere, Illinois. 2-1t

Situation Wanted—By a first-class tinner, sheet metal worker and furnace man. Capable of taking charge of shop. Can furnish the best of references. Address C. D., Woodstock, Illinois. 1-3t

Wanted—A position by February 1st, by good tinner and all around man. Can do furnace work, tin work, plumbing, hot water and steam work, also windmill and farm machinery work. Am also a good salesman. Am married and middle-aged. Not afraid of work and will consider nothing but a first-class proposition. One of the western states preferred. Address E-95, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 1-3t

Situation Wanted—By March 1, 1908, as working foreman by a strictly first-class plumber, steam and hot water fitter. Have a good knowledge of sheet metal work. Nothing but a permanent position considered. Am strictly sober and a hustler for business. The Northwest preferred. Address E-98, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 1-3t

Experienced stove salesman desires a position for 1908. Best of references. Address E-94, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 1-2t

Wanted—Position as stove or furnace salesman in Illinois. Have established trade. Will guarantee $30,000 annual sales with good trade mark line. Address E-97, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago.

Situation Wanted—By tinner. Fifteen years' experience at inside and outside furnace and all kinds of job work. Address C. A. Storck, 69 Walton Place, Chicago. 26-3t

Situation as tinner wanted at once by a good sober mechanic. Good references. State wages in first letter. Address Box 171, Bloomfield, Missouri. 26-3t

Situation Wanted—By an A1 sheet metal worker and furnace man. Capable of running cornice and furnace shop to an advantage. State wages, hours, etc., in first letter. Southern State, west of Mississippi river only. Address E-90, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 26-3t

Situation Wanted—By a first-class hardware man and salesman in retail store. Can sell goods, trim windows, look after advertising or anything around hardware store. Have had 12 years' experience in the business. Prefer Idaho, Washington or Oregon country. Address E-89, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 26-3t

SPECIAL NOTICES.

IRON PIPE COUPLINGS

We buy these, all sizes, any quantity. Clean, rusty or leaded. GWILLIAM SUPPLY CO., 1339 Ridge Ave., Philadelphia, Pa. 21-14t

FOR SALE

Up-to-date hardware store with tinshop; established ten years. Will invoice about $3,500. On West Side, Chicago. Address, "West Side," care THE AMERICAN ARTISAN, 69 Dearborn Street, Chicago. 12-ufn

FOR SALE

Set of Peck-Stow Tinners' Tools. These are new tools with standards. For list and price, address with stamp HAWKEYE PUMP CO. Washington, Iowa. 24-ufn

FOR SALE

Fine clean stock of hardware with tinshop and plumbing shop. Attractive modern store, well arranged with agencies for some of the very best standard lines. Business established 25 years. Located in progressive county seat in Eastern Nebraska. Business for sale for cash only, and sold on account of death in family necessitating a change of residence. Stock invoices about $10,000 and sales run $20,000 yearly. Address, B.-83, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago 21-ufn

IN EVERY TOWN

I would like one reputable hardware man or tinner to manufacture for our mutual benefit a patented device made of galvanized sheet steel to supply the trade in his territory. Retails from $1.00 up. Address, R. Merrill, Merrill Bldg. Milwaukee, Wisconsin. 25-8t

Situation Wanted

Salesman of many years' experience wishes a good line of stoves, furnaces, and house furnishing goods for Pacific Coast. Address, with full particulars, K-18, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 1-3t

Partner Wanted

Wanted, a proficient office-man who is also a thorough business man to interest himself together with a reasonable amount of capital in a prosperous and growing manufacturing business that relates to sheet metal work, tin and roofers' supplies. The business is an established one and will bear the closest investigation. The purpose in offering this invitation is to secure a person who can take full charge of the office and business affairs of the concern while the others, who are interested and are practical manufacturers, devote their attention to the production of goods to meet the very rapidly increasing demand. The location of the factory is in one of the most desirable parts of the middle northern country. Address "Partner," care THE AMERICAN ARTISAN, 69 Dearborn Street, Chicago. 2-3t

MANUFACTURERS' AGENT

Now representing a leading line of stoves and ranges wishes to acquire a good **wood** and **coal furnace** for Wisconsin and Upper Peninsula of Michigan. Address K-15, care THE AMERICAN ARTISAN, 69 Dearborn Street, Chicago. 24-ufn

No Cheap Construction About This

The regular stock 48-inch Burt Ventilator, which you see here supporting eleven able-bodied men, of total weight 1762 pounds, weighs itself only 320 pounds! But—it is honest workmanship, strong "Burt" bracing and extra heavy iron used (as in all Burt's) gives Burt's the durability, which is sure to stand long years of wear, as well as any unusual temporary strain.

A brand new feature is the fusible link connection which closes the damper automatically in case of fire.

Send for our new eighty page Catalogue, giving fine illustrations of Mills, Factories, Shops, Foundries and Residences where Burt Ventilators are in successful use.

The Burt Manufacturing Company, 650 Main St., Akron, O.

The largest manufacturers of oil filters and exhaust heads in the world.

SPECIAL NOTICES.

SALESMAN visiting stove and hardware trade to handle household specialty as a side line; extensively advertised in largest magazines, easy seller, immense sales, big profits; in writing state line you are selling and territory you cover. Address C. E. Swartzbaugh, 1336 West Bancroft street, Toledo, Ohio.

FOR SALE

Patterns, flasks, follow-boards, etc., for six complete lines of up-to-date steel ranges, including some valuable patents. Also full line of oak patterns. Can be bought at less than one-third of their value. Address K-20, care THE AMERICAN ARTISAN, 69 Dearborn Street, Chicago. 2-3t

WANTED

Chicago stove firm requires a foundry foreman, a foreman for the steel range and stove mounting department. Also mounters and other help skilled in stove work. Address K-19, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 2-4t

SALESMAN WANTED

for Chicago and vicinity. One acquainted with Retail Hardware Trade and familiar with builder's hardware. Address stating full particulars. K-7, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago.

"EASY TO PUT ON"—That's the reason why so many tinners are after the work of laying them. A plain tin roof needs a lot of studying out, cutting, soldering, labor, but a Cortright Roof is just plain sai'ing, every piece fits each other so perfectly that the work is done and the profits pocketed in no time. Send for catalog.

CORTRIGHT METAL ROOFING CO., Philadelphia and Chicago

MAHER & SON LIGHTNING ROD CO.

is the only firm that makes a 32 wire cable. **Arrow Vanes made of Pure Cast Aluminum; Horse, Cow and Rooster Vanes made of Pure Zinc instead of tin and 34 ins. long, pure copper bayonet points. Giving $500.00 guarantee.**

We have the finest static machine now, something new and given to our agents FREE. Write to-day for Agency and territory. Our prices are right.

MAHER & SON LIGHTNING ROD CO., PRESTON, IOWA

Graphite as a Lubricant—Tenth Edition

The very latest and freshest information, both scientific and practical, on the modern practice of graphite lubrication. Send for free copy 18-C.

Joseph Dixon Crucible Co. Jersey City, N. J.

Why Don't You Try

For one of those large Cash Prizes we offer in our

Great Window Display Competition?

All you have to do is trim that Hardware Display Window in as attractive a manner as possible, send us a photograph of it, and then—in all porbability—**carry off a prize.**

Looks Good! Doesn't It?

Well, it is good. You must not let this opportunity slip by you without grasping it. One of those Cash Prizes may be **yours.**

$50.00 $50.00 in Gold for photograph and description of Best Window Display of Hardware.

$25.00 $25.00 in Gold for photograph and description second in excellence.

$15.00 $15.00 in Gold for photograph and description third in excellence.

$10.00 $10.00 in Gold for photograph and description fourth in excellence.

CONTESTANTS—Any hardware dealer, or his assistant or clerk, is eligible to this competition.

TIME—The photographs may be sent by mail or express, charges prepaid, and must reach this office not later than noon, April 1, 1908. Address all photographs to

THE AMERICAN ARTISAN PRIZE COMPETITION

69 DEARBORN STREET, CHICAGO, ILL.

CONDITIONS—Each photograph must be signed by a fictitious name or device, and the same name or device must be put upon a sealed envelope, containing the real name and address of the contestant. This envelope is to be enclosed with the photograph.

AWARD OF PRIZES—The Competition Committee, one of whom will be a practical window trimming man and one a practical hardware man, will pass upon all photographs and descriptions received within the prescribed time and will decide between the contestants.

THE AMERICAN ARTISAN reserves the right to publish all photographs and descriptions of same submitted in this competition.

THAT

"BRAUER'S"

is the best place to buy Stove Dealers' Supplies, Castings and Stove Repairs?

Prices Are Lowest. Prompt Shipment.

ADDRESS

A. G. BRAUER SUPPLY CO., 316-318 N. Third St., ST. LOUIS, MO.

Cleveland Nickel Works, Cleveland, Ohio

MANUFACTURERS OF

"SUPERIOR" Improved Exhaust Tumbling Mills, Dust Arresters, Hard Iron Stars, Wrought Iron Chaplets, Plain and Tinned, Stove Rods, Furnace Rods, Chair Rods, Stove Scrapers and **all kinds of NICKEL PLATED STOVE TRIMMINGS.** Send for catalogue.

EASY!

Long distance telephone me and reverse charges. I will pay the freight; then it is as easy as if I had my office in your town.

I Manufacture FOUNDRY FACINGS and SUPPLIES, BUFFING COMPOSITIONS and PLATERS' SUPPLIES.

FREDERIC B. STEVENS, Corner of Larned & Third Streets, **DETROIT, MICH.**

THE RIGHT KIND

of Oven Thermometer is

THE **"Acme"**

THE **"Acme"**

MADE BY **EVANS STAMPING AND PLATING CO.** TAUNTON, MASS.

Western Agent, C. H. MATTHEWS, Detroit, Mich.

SPERRY'S SUGAR KETTLES

Light, smooth, full measure and guaranteed perfect. Made from original patterns. Metal, the right kind in the right place. Ask your jobber for them or write us.

D. R. SPERRY & CO. HOLLOW-WARE FOUNDERS **Batavia, Ill.**

EVERYTHING YOU NEED IN YOUR FOUNDRY

We are Headquarters for

Foundry Facings, Plumbago, Graphite, Putty and Supplies of Every Description. In fact—

Everything You Need

in your foundry.

Get Catalog No. 40-A NOW.

Established 1874

THE S. OBERMAYER CO.

Cincinnati Chicago Pittsburg

WELLER PATTERN Co

DESIGNS and ESTIMATES FURNISHED FOR ALL KINDS OF STOVE PATTERNS

QUINCY, ILL.

PATTERNS

For Stoves and Heaters

The Cleveland Castings Pattern Co.

CLEVELAND, OHIO

The GEO. W. COPE **STOVE PATTERN WORKS** Cor. Brush & Woodbridge Streets DETROIT, MICHIGAN

PATTERNS

For Stoves and Heaters

First-Class in Wood and Iron

Vedder Pattern Works, Troy, N. Y.

Established 1855

QUINCY PATTERN Co

IRON & WOOD

STOVE PATTERNS

QUINCY, ILL.

Alaska STOVE TRIMMINGS

Shovels, Pokers, Lid Lifters, Knobs, and Malleable Stove Fittings of All Kinds.

Troy Nickel Works, Albany, N. Y.

Our stock of
SHEET COPPER
Is larger and more complete in variety of sizes and kinds than that of any manufacturer in the country, comprising an assortment of
OVER 150 SIZES
and aggregating over
300,000 POUNDS

STAR BRAND
SHEET COPPER
TRADE MARK STAR BRAND
U. T. HUNGERFORD BRASS & COPPER COMPANY
497-505 PEARL ST. NEW YORK 37-43 PARK ST.

Our stock includes
SOFT COPPER
Cold rolled, levelled cornice copper
Cold rolled polished copper
Cold rolled copper, not polished
All stock sizes of above, either TINNED OR PLAIN, on hand in New York ready for immediate shipment

STOCK SHEET SHOWING FULL ASSORTMENT ON HAND. SENT ON REQUEST.

Selling Metal Ceiling

Perhaps you think it would be just as much work to get an order for Lock-Joint Metal Ceiling as for the ordinary Lap-Joint Ceiling?

Perhaps you think the Lock-Joint advantages are mere talking points? They are that, and more, too. Lock-Joint has genuine advantages. Where a first class ceiling is wanted we have no trouble actually demonstrating the superiority of the Lock-Joint construction. "Dust-proof and air tight" is an invincible argument, absolutely proven.

Can't you see you could make more money, and more easily, if you handled Lock-Joint Metal Ceiling.

Better write to-day for catalog "D."

S. Keighley Metal Ceiling & Mfg. Co.
PITTSBURGH, PA.
Boston, Mass. New York, N. Y.
Washington, D. C. Baltimore, Md.

"Target and Arrow Old Style Brand Roofing Tin"

An old roofer at Ennisville, Hunt Co., Penna., writes us:

"I bought my tinner's tools from you in 1860, and the same summer put spouting on the house I am now in, made of tin bought of you, and this is still in use."

OLD STYLE
REGISTERED
TRADE MARK
N.&G.TAYLOR CO
PHILADELPHIA

Fac-simile of the Trade-Mark stamped on each sheet of the "TARGET-AND-ARROW Old Style" tin. Registered in U. S. Patent Office.

We now use the old name for our brand, "TARGET AND ARROW" rather than the brand "OLD STYLE", which has been imitated in every possible way by other tinplate houses. The stamp on the sheets remains exactly the same as we have always used.

"This is the same durable quality of tinplate today that we have been selling for upwards of fifty years."

"For sale by all leading wholesale hardware jobbing houses throughout the country."

"Orders from those in the trade sent direct to us are given prompt attention."

N. & G. TAYLOR COMPANY
Established 1810 Philadelphia

Chas. Bender, of Rolla, Mo., writes:

Please discontinue my ad., as I have found the place I wanted, and change my address to Ardmore, I. T. The American Artisan surely is a great paper, as I have had letters from all over the country. I don't think I could get along without it.

4-7

"Merchant's Old Method"

"Reg. in U.S. M&E Pat. Off."

Made of the Finest Grade of

OPEN HEARTH STEEL

Coated by the Pure Palm Oil Process

Two important essentials in the manufacture of Lasting Roofing Tinplate.

This represents the quality of our HIGH GRADE BRANDS, and they are the recognized standard in their respective grades by all roofing experts and users.

Merchant & Evans Company

PHILADELPHIA
NEW YORK
BROOKLYN
BALTIMORE

Successor to
Merchant & Co., Inc.,
Manufacturers of High Grade Roofing and Bright Tinplates.

CHICAGO
KANSAS CITY
DENVER

LOCK SEAM TUBING AND TUBING ELBOWS

1, 1¼, 1½ inches in diameter

Galvanized After Formation.
Heaviest Tin Speaking Tube on Market.
Elbows made of One Piece of Metal.

Heavy Tin

Galvanized After Formation

1, 1¼, 1½ inches in diameter

For Ice Box Drains, Portico Work, Speaking Tubes, Lighting Systems, Incubators. Ask for prices, state *quantities desired.*

FERDINAND DIECKMANN

Station B., CINCINNATI, OHIO

Do You Want the Right Kind of Assistance in Selling Steel Ceilings?

Have you ever stopped to consider what the right kind of assistance really means?

It means quality of product, style, beauty, clearness of stamping, ease of application, correctness of fit.

It means suitable designs for all kinds of rooms. It means the furnishing of practical suggestions to aid your customers in making a suitable selection. It means furnishing free exhibition drawings to show your customers just what you propose to furnish and just how the different parts combine with each other.

It means prices that will interest your trade.

We can give you this kind of assistance. We co-operate with loyal dealers and help them to get the business. Isn't such service worth while to you? You can have it if you will. Write us TO-DAY for details.

ASK FOR CATALOG D-8

THE BERGER MFG. CO., Canton, Ohio

New York Philadelphia Boston Chicago St. Louis Atlanta San Francisco Minneapolis

SPECIALTIES: Steel Ceilings, Roofing, Siding Ventilators, Skylights, Etc., Etc.

Our stock of
SHEET COPPER
is larger and more complete in variety of sizes and kinds than that of any manufacturer in the country, comprising an assortment of
OVER 150 SIZES
and aggregating over
300,000 POUNDS

STAR BRAND
SHEET COPPER
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Fac-simile of the Trade-Mark stamped on each sheet of the "TARGET-AND-ARROW Old Style" tin. Registered in U. S. Patent Office.

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LOCK SEAM TUBING AND TUBING ELBOWS

1, 1¼, 1½ inches in diameter

Galvanized After Formation.
Heaviest Tin Speaking Tube on Market.
Elbows made of One Piece of Metal.

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For Ice Box Drains, Portico Work, Speaking Tubes, Lighting Systems, Incubators. Ask for prices, state *quantities desired.*

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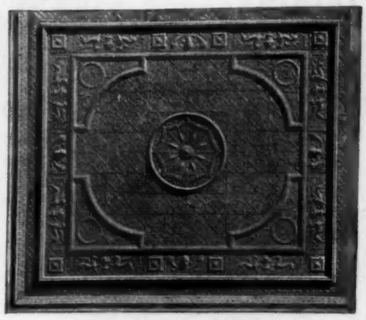
THE BERGER MFG. CO., Canton, Ohio

New York Philadelphia Boston Chicago St. Louis Atlanta San Francisco Minneapolis

SPECIALTIES: Steel Ceilings, Roofing, Siding Ventilators, Skylights, Etc., Etc.

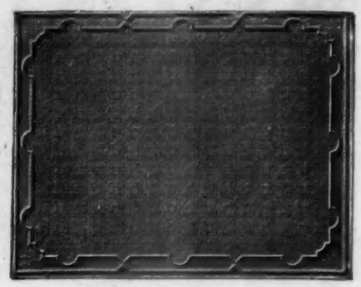


DESIGN NO. 8248.

WHEELING METAL CEILINGS

FIRE PROOF
PRACTICALLY INDESTRUCTIBLE
The Most Artistic Interior Finish
Designed for Rooms of All Kinds
MODERATE IN COST

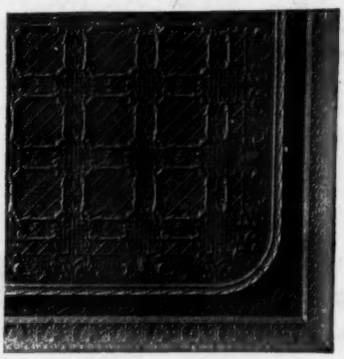
Manufactured by
WHEELING CORRUGATING CO.
(Makers of Dixie Metal Shingles)
WHEELING WEST VIRGINIA



DESIGN NO. 8210.

LARGE STOCKS IN ALL OUR WAREHOUSES
BRANCH OFFICES AND WAREHOUSES

New York City.....47 Cliff Street
Chicago.....23-25-27 N. Clinton Street
St. Louis...1006-8-10 Spruce Street
Philadelphia ..402, 404, 406 Race Street
Boston, Mass..132 and 134 Pearl Street
Chattanooga, Tenn.....King Street



DESIGN NO. 8254.

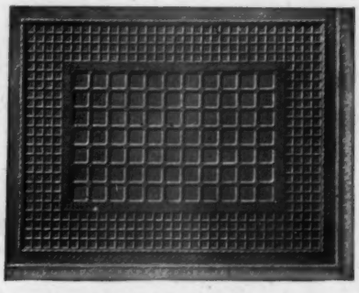
Many Sheet Metal Workers are Taking up the Erection of

METAL CEILINGS

for the Reason that it gives them Indoor Work during Inclement Weather.

Send Measurements and Ask for Estimate.

We Furnish Drawings.



DESIGN NO. 8046.

Plecker's *Corrugated* Expanding *Conductors*

Have no Cross Seams. Made of Galvanized Iron in ten-foot lengths. [redacted] Will not burst when full of ice.

CLARK, QUIEN & MORSE. PEORIA, ILL.

SIX STANDARD PRODUCTS

USED BY ALL THE LEADING STOVE AND RANGE MANUFACTURERS:

W. Dewees Wood Company's Patent Planished Iron.
Wood's Cleaned Refined Smooth Finish.
Hammered Polished Steel.
Wood's Oak Stove Body.
Wellsville Polished Range Steel.

MANUFACTURED BY

AMERICAN SHEET & TIN PLATE COMPANY

FRICK BUILDING PITTSBURGH, PA.

THE AMERICAN ARTISAN,
Chicago, Illinois.

Dear Sir:—Enclosed please find my subscription for this ensuing year. I advertised a list of tinners' tools for sale in your paper and never experienced such results from advertising in a trade paper before. I have sold the most of my tools. Have a few left. I received inquiries from Texas to Maine and from the far southeast to the far northwest. Thanking you for courtesies shown me in your advertising department, I remain,

Very truly,
Eugene W. Holbrook,
219 Main St., Charles City, Iowa

Fine Art In Ceilings

New and Original Designs

Invisible Joints

Dust Proof

Evenly Painted

Easily Erected

We Co-operate With You

F. O. SCHOEDINGER, Columbus, O.

Perfection In Metal Ceilings

THE GOODS MANUFACTURED BY

FRIEDLEY-VOSHARDT CO.

ARE IN A CLASS BY THEMSELVES

WRITE TO-DAY FOR CATALOGUE AND PRICES

194-204 Mather Street - Chicago, Ill.

La Crosse Steel Roofing and Corrugating Co.

LA CROSSE, WISCONSIN

MANUFACTURERS OF

EAVES TROUGH
CONDUCTOR PIPE
CUT OFFS
MITRES, ENDS AND DROPS

ROOFINGS AND SIDINGS
STEEL CEILINGS
CORNICES
SKYLIGHTS

Quick Shipments Our Specialty *Send for Catalog*

"KUEHN'S PATENT" CUT-OFFS

CORRUGATED

MAIN OFFICE AND WORKS
MILWAUKEE, WIS.

The Best Ever Made

GALVANIZED AFTER FORMATION

No Solder Used in Putting Together

Ask your Jobber for them

MILWAUKEE CORRUGATING CO.

SOLE MANUFACTURERS

The Largest Sheet Metal Works in the Middle West

PLAIN

BRANCH HOUSE
KANSAS CITY, MO.

We'll go more than half way to help you sell a

STEEL CEILING

And our perfect-fitting, correct designs will go more than half way to help you sell another.

The SIMPLICITY of our combinations produce the most pleasing results for the least cost.

St. Paul Roofing, Cornice and Ornament Co.

The Leading Sheet Metal Plant of the West — ST. PAUL

TIME required in erection of metal ceilings tells what profit is made on the job. If the construction of the plate is poor, they won't fit and will require more time and care and will produce a badly appearing job, as a result.

Buy CANTON METAL CEILINGS

the profit sharing kind. Let us tell you more about them. Our Art Metal Ceiling book "H" is yours for a postal.

THE CANTON ART METAL CO.
CANTON, OHIO.

New York Agency, 525 W. 23rd St.
Minneapolis Agency,
253 Second Ave. S.

MR. DEALER or JOBBER, your R. F. D. carrier, milk man, delivery or school wagon, want an

Ideal Wagon Stove

It's original—nothing like it. Small, 7x10 inches, weighs 7 lbs., burns any fuel, malleable castings, takes 3 inch pipe. Guaranteed. In lots of 6 or more $20.00 per dozen, F. O. B. here. Sample $2.50. Ship promptly.

W. H. SHIRLEY, GALVESTON, IND.

"WAY AHEAD"

Of the grindstone or any other apparatus for sharpening table or kitchen cutlery or edge tools of every kind are our

Hand and Foot Power

Grinders & Tool Sharpeners

Four sizes. Needed in every home—every day in the year. Every grinder guaranteed. Be sure; Get our catalogue with Discounts to the trade—to-day.

ROYAL MANUFACTURING CO.
108 E. Walnut Street, Lancaster, Pa., U. S. A
New York, 176 Fulton Street, Herbert Porter & Co., Managers
Chicago, 113-115 Michigan St., F. G. Curtis & Son, Managers

FREIGHT CHARGES are sometimes heavy charges. *We can*

SAVE YOU MONEY

We are large manufacturers—small profits—

MANY SALES

SYKES STEEL ROOFING CO.
Chicago, Ill., and Niles, Ohio
Mfrs. Steel Roofing, Corrugated Iron, Etc.

YALE
Russia finish, pat. lock
STOVE PIPE

It is made of a very high grade of uniform color Blue Polished Steel, and is coated to prevent rusting. Made in all sizes.

Packed twenty-five and fifty joints to crate. For sale by the jobbing Hardware Trade throughout the United States.

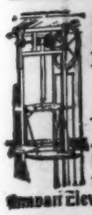
MFD. BY
HEMP & CO.
2nd & Chouteau Ave.
ST. LOUIS

In the event your jobber does not handle this pipe send your inquiries to us.

STANDARD HORSE NAIL CO.
NEW BRIGHTON, PA., U.S.A.
MANUFACTURE
A Full Line of Horse Nails
Send for Catalogue, Prices & Samples.

F. D. Burgess, Waupaca, Wis., writes:

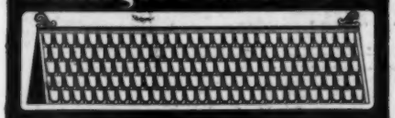
"Please take out advertisement for Tinner, I have one in sight that I think I shall get. I have had all kinds of letters from men in this state, Ills., Iowa and Minnesota. I am running tin and plumbing shop here in connection with the Union Stove Co."



ELEVATORS
Improved Quick and Easy, Rising Steam, Electric and Hand Power.
SEND FOR CIRCULAR
KIMBALL BROS. CO.
1031 Ninth St., COUNCIL BLUFFS, IOWA
Kimball Elevator Co., 139 Vincent St., Cleveland, O.

ROOFING SLATE
All Grades Manufactured and Sold by
THE AULD & CONGER CO.
CLEVELAND, O.
Roofers' Supplies, Tools, Lightning Slate Dresser
WE MINE OUR OWN SLATE

WALTERS'

Shingles that last

Made from Galvanized Tin and Painted Tin
Storm, Rust and Fire Proof
Do you want to increase your business? THIS IS YOUR OPPORTUNITY. Write for catalogue samples and prices.
National Sheet Metal Roofing Co.
JERSEY CITY, N. J.

Gerock Bros. Mfg. Co.
Sheet Metal Ornaments and Statuary
Detail Work a Specialty
Ask for Catalogue
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THE HARRINGTON AND KING PERFORATING CO.
PERFORATED METALS
OF EVERY DESCRIPTION AND FOR ALL PURPOSES
FOR SCREENS OF ALL KINDS
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New York Office: 114 Liberty Street.

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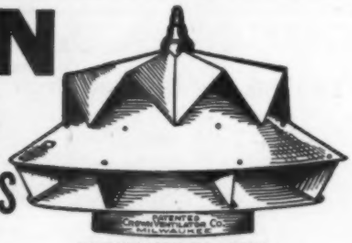
CROWN JACK IN PLACE
VENTILATORS AND CHIMNEY JACKS
Different from ALL OTHERS and we think BETTER
Write us and we will tell you why.
CROWN VENTILATOR CO.
Cary Bldg. MILWAUKEE

CROWN VENTILATOR
Hardwaremen and Tinners:
Ask for our Special Proposition free to you. It will pay you to do this.

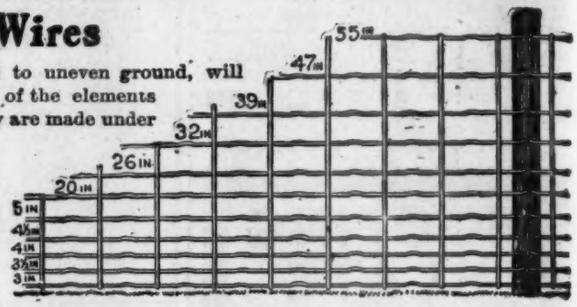
THE Ideal Epworth Acetylene Co.
INCORPORATED

MANUFACTURERS OF THE IDEAL EPWORTH "D" GENERATOR
DEALERS IN CARBIDE, BURNERS, ACETYLENE FIXTURES, ETC
Write for Circulars and Terms
The Ideal Epworth Acetylene Generators
Are Ideal in construction, Ideal in light producing power, Ideal in giving out steady light, Ideal in selling qualities, Ideal in lighting Dwellings, Stores, Hotels, Churches and Towns. Acetylene light is the safest, best, cheapest, brightest, finest light in the world, when produced in the Ideal Epworth Generators. Satisfaction guaranteed. Agents wanted.
IDEAL EPWORTH ACETYLENE CO., (Successors to Epworth Gas, Light & Heating Co., Waterloo, Iowa.)
JOHNSTON, PA. WATERLOO, IOWA

MARVEL
Patent applied for
PORTABLE PUNCH No. 20
Made entirely of STEEL
Capacity ¼ inch hole in ¼ inch.
Length 38 inches, weight 16 lbs.
Write for circular and price of this and other Marvel Tools.
ARMSTRONG-BLUM MFG. CO.,
106 N. Francisco Ave., Chicago, Ill.

"Pittsburgh Perfect" Fences

All Galvanized Steel Wires



Are durable, strong and adjustable. They can be adjusted to uneven ground, will surb in the strongest beast and will withstand the attacks of the elements longer and surer than any other fence on the market. They are made under the same favorable conditions and as carefully as all the

"Pittsburgh Perfect" Brands

of Wire Rods, Annealed, Bright and Galvanized Smooth Wire, Barb Wire, Twisted Cable Wire, Fence Staples, Wire Nails, Steel Hoops, Bands and Cotton Ties. Dealers can sell goods readily which are

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The Pittsburgh Steel Co., Pittsburgh, Pa.

Disston Hand Book on Saws.

Yours for the Asking

This new edition contains 208 pages of useful, practical information—articles on The Making of the

DISSTON SAWS, TOOLS AND FILES,

giving the progressive steps in their manufacture, large number of illustrations of the works, together with TREATISES on the CARE and USE of Saws, etc.

HENRY DISSTON & SONS, Inc.
KEYSTONE SAW, TOOL, STEEL AND FILE WORKS
PHILADELPHIA, PA.

STRAP & T HINGES
Pressed Steel Shelf Brackets

BUTT HINGES
Barn Door Hangers and Track

Our Planished Steel **STRAP and T HINGES** are now all made on Automatic Machinery—Every one is as true as a Die. Our **BUTTS** are unequalled in Workmanship and Finish, All our Goods Guaranteed—**BEST IN THE WORLD.**
(And they cost no more.)

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AKRON ECLIPSE LEVELS

All glasses in **Akron Eclipse Levels** are carried on elastic bearing and enclosed in heavy glass tubes and are almost unbreakable.

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Magic Pattern Rule Will Lay Out Patterns

For any size and angle of elbows in three minutes' time. Can also be used as Straight-edge Rule, Circumference Rule and Trammel. Should be in every Tinshop. Will save its cost in a few weeks. Thousands are in use and every one giving excellent satisfaction.

Price, complete in a nice Wooden box with Chart, $4.00 net cash

LUFKIN RULE CO., SAGINAW, MICHIGAN (Mention THE AMERICAN ARTISAN)

THAT BLUE FLAME

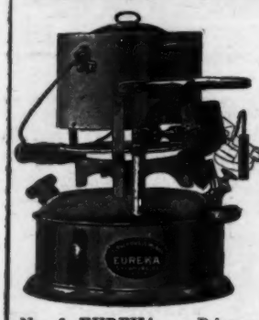
No. 5 Fire Pot—$4.50 Net.

Clear, steady, intensely hot, at the expense of but half the gasoline required in other makes, represents the completed development of a right principle in fire pot and torch construction. But that is not all—every part of a C. & L. fire pot or torch has had equal care, study, watchfulness and the expenditure of much money and special skill in our over twenty years' experience as manufacturers of gasoline fires. Isn't this worth something to you as a guaranty of quality, efficiency and utility? Read our booklet. Write us. If you want to save dollars, now's the time to act.

Jobbers supply at factory price, or we will ship direct if cash accompanies the order.

CLAYTON & LAMBERT MFG., CO.
DETROIT, MICH., U. S. A.

HOTTEST ON EARTH



LET US PROVE IT

No. 6 EUREKA. Price each, $6.00 Net
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Jobbers sell at factory price.

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26 Park Avenue Sycamore, Ill., U. S. A.

CRIMPING ROLL

Write for Catalog "F."

This Improved Crimping Roll will crimp sheets without buckling them. We build a complete line of Shears, Punches and Bending Rolls, all sizes for hand or power drive. BERTSCH & CO., Cambridge City, Ind.

H. WEISS & CO.

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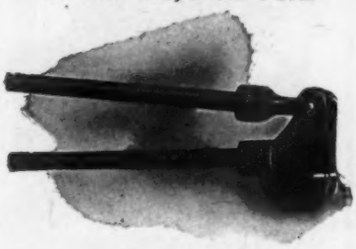

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Tinsmiths' and Plumbers' Tools. Cornice Makers' Tools. Coppersmiths' Tools Pipe Threading Machines

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is a little thing to look for, but a big thing to find; it appears on all genuine

ART METAL CEILINGS

Tin and Terne Plate
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Elbows and Shoes

Steel Roofing
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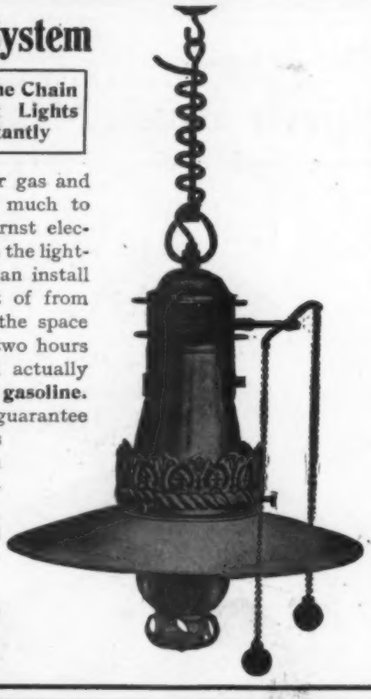
ELLER MFG. CO. : : CANTON, OHIO

A Gasoline Lighting System That Requires No Generating

Pull the Chain and it Lights Instantly



Is as convenient as electricity or gas and costs less than one-twentieth as much to operate. Looks like the latest Nernst electric arc lights. It will revolutionize the lighting of stores and homes. Anyone can install and own a lighting plant at a cost of from $20.00 up, according to the size of the space to be lighted. **500 Candle Power,** two hours a night for **a Nickel a Week.** Will actually run 40 to 60 hours on **one gallon of gasoline.** Every outfit carries an eleven year guarantee backed by a responsibility that is unquestionable. The only objection to gasoline lighting, viz.:—having to generate the lights before using, entirely overcome. Send for our 48 page catalogue showing many beautiful designs.

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TWO MORE REASONS WHY STEEL BRAKES EXCEL

OTHERS WILL FOLLOW

The strength of steel being approximately three times that of iron it is clear that much heavier work can be done with the same effort on a brake so constructed.

Another quality of steel is that it will not warp like wood nor get sprung as iron will, thus assuring a straight and perfect bend always.

A postal will bring you net prices F. O. B. your city.

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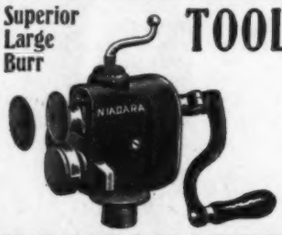
TOOLS FOR SHEET METALS

Superior Large Burr



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Tinners' and Roofers' Tools,
Shears, Punches, Presses and
Dies, Can-Making Machinery

MADE BY

NIAGARA MACHINE & TOOL WORKS, Buffalo, N. Y.

"Yankee" Tools are the Newest, Cleverest and Quickest Selling

and Are Without Equal in Quality or Efficiency in Practical Use

No. 10 and 11—Ratchet, Right and Left Hand and Rigid

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No. 40-41-44—Automatic Drill

No. 50—Reciprocating Drill for Wood or Metals

Send for "Yankee" Tool Book

North Bros. Mfg. Co., Philadelphia

Our Revolving Display Stand

Sheet Metal

Strong-Durable-Convenient

It is neat in appearance and may be painted in any color or otherwise treated. The circular sections revolve freely with heavy loads. It occupies little floor space. One may stand in one position and bring every article to hand. An excellent device for displaying all kinds of goods. It is a splendid paint salesman. Also an ideal help for window displays. It is nearly 5 feet high. It has 25 compartments.

Ask Us About It

We also make Revolving Nail Bins on the same principle, in cast iron.

Ask Us About These Also

REVOLVING BIN CO., Wellston, Ohio

We Have a Hardware Delivery Wagon That You Can Depend Upon

Body 20 in. from the ground; full width; regular heighth wheels; and yet will turn short.

EASY TO LOAD AND UNLOAD

Durability guaranteed.
Complete catalogue on request.
Mention this paper and address in full.

SYCAMORE WAGON WORKS

109 Edwards Street, SYCAMORE, ILL.

PULLMAN SASH BALANCES

Are you selling them?

IN USE EVERY-WHERE

Send us your orders

PULLMAN MFG. COMPANY
ROCHESTER, N. Y., U. S. A.

Buckeye Paints

are unquestionably the best, most durable and economical line of paints manufactured

Our products are designed to meet the wants of all classes of paint consumers. We guarantee all paints and varnishes bearing our name. Made of the best material obtainable.

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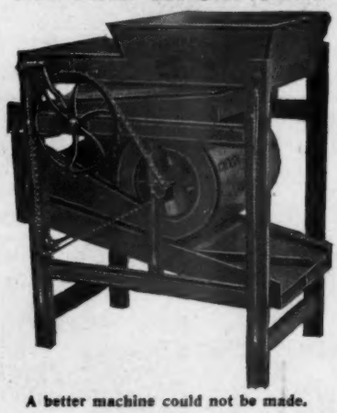
Grain Grader and Seed Cleaner



A better machine could not be made.

Price REASONABLE.

Sold on exclusive agency plan only.

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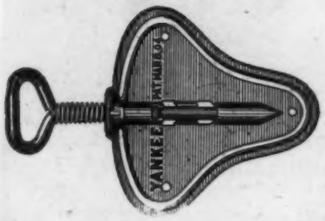
OMAHA, NEB.
Sole Agents for Nebraska

YANKEE DAMPERS and CLIP (All Steel)



SMOKE PIPE SIZES
3 inch to 8 inch

HOT AIR PIPE SIZES
6 inch to 15 inch

Easiest to Get In or Out

Best & Cheapest Damper Made

GET OUR PRICES

The S. M. Howes Co.

40, 42, 44, 46 Union Street, BOSTON

SAMPLE FREE

FREE CATALOGUE to anyone for asking showing complete line of TINNERS' AND ROOFERS' SUPPLIES.

Large stock, great variety, prompt shipments.
Get our prices.

BERGER BROS. CO., OFFICE AND STORE, 237 Arch St.; WAREROOMS, 100-02-04 Bread St.; FACTORY, 3114-16-18-20 N. 17th St., PHILADELPHIA.

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To the Publishers
The American Artisan and Hardware Record
69 Dearborn Street, CHICAGO

Please send us THE AMERICAN ARTISAN each week for three months. At the end of that time we will remit Two Dollars for one year's subscription, or 50 cents in case we decide to discontinue.

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ADDRESS .....

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STATE .....

AGATE NICKEL-STEEL WARE

AGATE L&G Mfg. Co. NICKEL-STEEL-WARE

Is absolutely free from poisonous substance, is made by careful, experienced men, by a company founded in 1850. The first enameled ware and blue and white ware made in this country was made in our mills. We know how to make enameled ware safe and durable. We make it safe and durable because we are proud of the trade mark. Look for the blue label.

Lalance & Grosjean Mfg. Co.

CHICAGO, NEW YORK BOSTON

The New 1908 Washer

ROTARY

The Rotary

Embodies the latest features in washing machine construction. It is unequaled in style, finish, durability and **ease of operating.**

The Tub

Is made of Louisiana Red Cypress Lumber. The inner side and bottom being corrugated. **The legs form part of the tub,** being extended staves, strengthened with braces.

The Lid

Is double thickness and fitted to tub with heavy steel hinges, all joints are tongued and grooved, making them perfectly tight.

The Gearing

Is of the Internal Gear-Wheel type (which is the strongest and most powerful gear-wheel known in mechanics) and revolves on fixed bearings—it contains no springs or clutches and has no sliding and lost motion whatever. **This is the only successful quick reverse gearing made.**

The Gear Cover

Completely encloses the gearing, and can be opened for oiling without the use of any tools.

The Dasher

Is made of hard wood and adjusts itself to the amount of clothes in the machine. The dasher post is heavily galvanized, preventing rusting.

The Finish

Is light (natural wood) color for the tub and aluminum bronze for the castings and hoops, making a very neat and attractive appearing machine.

Sold to Only One Dealer in a Town. Secure the Agency Before Your Neighbor Does.

Rotary Washing Machine Co.

ST. LOUIS, MO.

Clipper Lawn Mower Co. DIXON, ILL.

Manufacturers of Hand and Pony Mowers, also Marine Gasoline Engines from 2 to 8 horse power.

THE MOWER That will kill all the weeds in your lawns

If you keep the weeds cut so they do not go to seed, and cut your grass without breaking the small feeders or roots, the grass will become thick and the weeds will disappear. **The Clipper will do it.** If you wish Clippers, send in your orders.

UMBRELLA CLOTHES BAR

32 FEET DRYING SPACE

Handy in Laundry, Kitchen and Nursery. Handy Everywhere. Each arm one piece, kiln dried hardwood, works independently.

MARTCROSS CO., Mfrs.
40 Dearborn St., CHICAGO

Blick No. 3 The Best Box For Rural Free Delivery

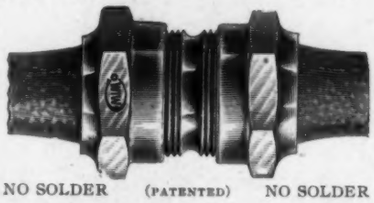
Be Just With Customers

Sell them Blick No. 3 boxes. They are big ones, 6½ x 8½ x 19 inches. Made of heavy galvanized steel. Painted green, the new government color. Same shape and color as city boxes. Have Positive-Locking Flag Signal, Automatic Latch, Watertight Quality. Every box tested, every box right, every box warranted. They will get the business. You better get them. Order now.

$5.88 per Doz.

Blick-Williams Co.
Indianapolis, Ind.

Mimco Solderless Couplings

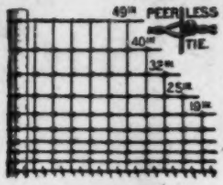


NO SOLDER (PATENTED) NO SOLDER

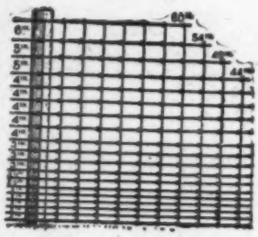
Do away entirely with wiping joints. A practical article and **BIG SELLER.**
Send for Descriptive Circular and Price-List.

MODERN IMPROVEMENTS MFG. CO.
466-470 17th Street - BROOKLYN, N. Y.

THE DENNING FENCE



For yard and pasture has no equal. Our Peerless Cabled Fence with barb wire in the bottom turns hogs, absolutely. We beat the world on Poultry Fence. We make perfect Barb Wire. We ship mixed cars Woven Fence, Barb Wire and Nails.



Write for Catalog and Prices.

THE DENNING WIRE & FENCE CO., Cedar Rapids, Iowa.

The White Washer

The Greatest of all

Momentum Washers

A Few Points:

Double Ball Bearing Fly Wheel under the Tub. Highest Speed. Easiest Running. Quicker Reverse. Foot Power Attachment. Tub opens when machine is in full motion. Five Years' Guarantee, and numerous other points.

Sold to only one dealer in each town.

Get Busy—Write Today

WHITE LILY MFG. COMPANY
DAVENPORT, IOWA

HAVE YOU A RING IN YOUR TAIL?

I have. My name is **The "Ring Tail Red Devil."** I hang up by the tail. My handle don't warp. My blade is always keen. I am put up in an antiseptic case. I am a good shaver, not a poor one. Have you got me in stock? If not, order a sample and you will not keep me, the other fellow will want me. **THE GENUINE "RED DEVIL" RING TAIL RAZOR.**

SMITH & HEMENWAY CO., 108-110 Duane St., New York City

Iwans' Volcano Revolving Chimney Top

Sizes 6 to 12 inches. Sold by jobbers of Hardware and Tinners' Supplies.

Notice one of its **Strong Features.** The upward sloping opening in back of hood creates a constant upward draft, no matter how depressing the atmosphere.

You need it for some of your customers' chimneys.

Send postal for catalogue.

IWAN BROTHERS
Mfrs. of Hardware Specialties
STREATOR, ILL.

JAN 18 1908

"Jack Frost" Freezer Makes a "Jack Pot" Of Money For Dealers

Yes, sir, the Jack Frost Freezer makes money for every dealer who handles it, simply and solely because it makes good "cream" for the man who gets it and because it's easy running, durable, and an ice economizer.

Your customers are just as particular as any other dealer's and just as appreciative of a freezer that **looks** good and plays the part it looks.

Best Multiple-Motion Freezer

You can't beat this multiple-motion freezer any way you may test it. Mechanical construction allows no **lost** motion; self-lubricating and all gearing covered so no oil or salt can get in can. Tub made of seasoned, kiln-dried lumber that doesn't warp, shrink or rot. Can is high-grade charcoal plate throughout, cover being drawn absolutely seamless. All metal parts heavily galvanized.

Ask to know more about the Jack Frost Freezer. Our proposition is ready for you and will interest you. Your profit on the Jack Frost is good and the freezer always "makes good," which brings the same customer back to your store to buy other goods. For details and particulars. Write us, asking for Catalogue No. 75.

Sturges & Burn Mfg. Co.

Makers of

Milk Cans, Packing Cans, Freezers, Griddles, Sheet Iron Specialties, Etc.

Harrison and Green Streets, Chicago, Illinois

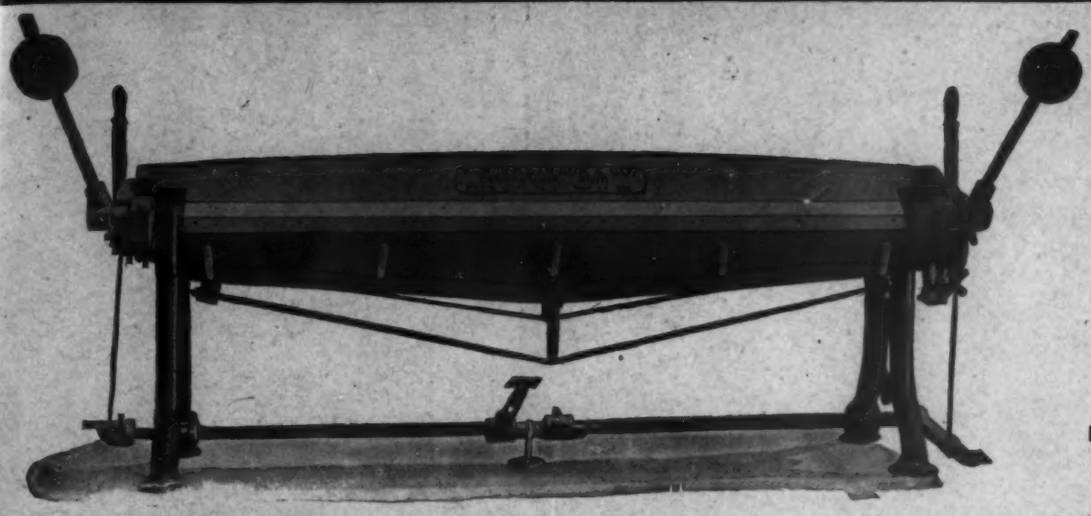
The "O. K." Rotary Has Roller-Cogs Throughout

Known the World Over for Simplicity, Strength, Durability and ease of operation.

IF WE could place an O. K. washer in your store, set it up and **show you** through a practical demonstration of washing clothes, what it will do, it would not be necessary for us to tell you anything about it as the machine would speak for itself. But while thousands of dealers know all about this faithful machine through many years of close association, yet there are many who would be greatly **benefited financially** and otherwise too, if they would give the "O. K." an equal chance with other so called "just as good kind washers," for it would not take them long to be convinced that there is but one **"O. K."** Rotary, and that its name implies just what it is, simply **"O. K."** nothing more, nothing less.

Your correspondence solicited.

H. F. BRAMMER MFG. CO. DAVENPORT, IOWA.



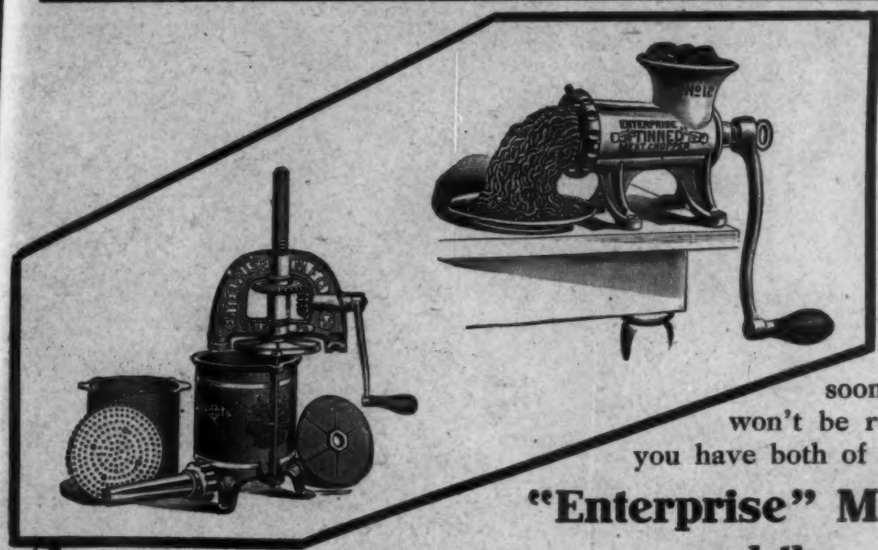
The above cut shows the general design of our Cornice Brake. These Machines are guaranteed for No 20 Gauge material and lighter, and with Heavy Bending Attachment for No. 18 Gauge. With each brake is furnished 2½-inch, 2-inch, 1½-inch and 1¼-inch wood formers, and 1-inch, ⅞-inch and ¾-inch iron forms, also friction clamps for holding same. All machines are fitted with foot treadles, quadrant gauge and three quadrant stops.

WRITE FOR CIRCULAR.

The J. M. Robinson Mfg. Co.

SHEET METAL WORKING MACHINERY

Spring Grove Avenue **Cincinnati, Ohio**



Hurry Up!

Sausage time will soon be here and you won't be ready for it unless you have both of these—the

"Enterprise" Meat Chopper

and the

"Enterprise" Sausage Stuffer and Lard Press

One chops the meat and the other stuffs the sausages as "easy as can be," in the shortest time with the least effort, and the sausages are as "good as can be."

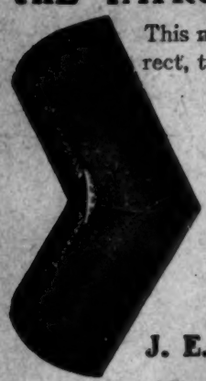
The *"Enterprise" Sausage Stuffer* has the cylinder bored absolutely true, and has a Patent Corrugated Spout that allows air to escape from the casing as the sausage is stuffed, thus assuring the preservation of the sausage. Take time by the forelock and jog your jobber *now*.

The Enterprise Manufacturing Co. of Pa.

Philadelphia, U. S. A.

21 Murray Street, New York 438 Market Street, San Francisco

THE IMPROVED ONE-PIECE MITER



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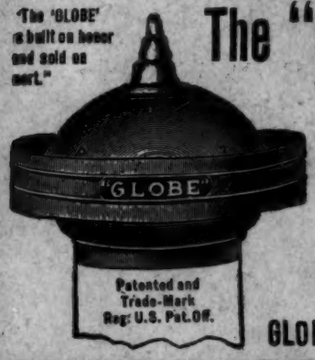

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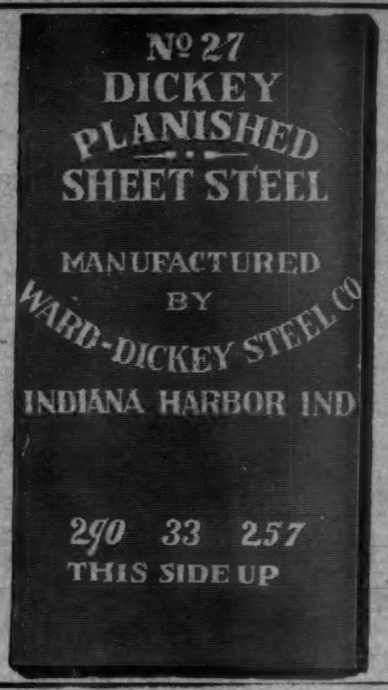

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